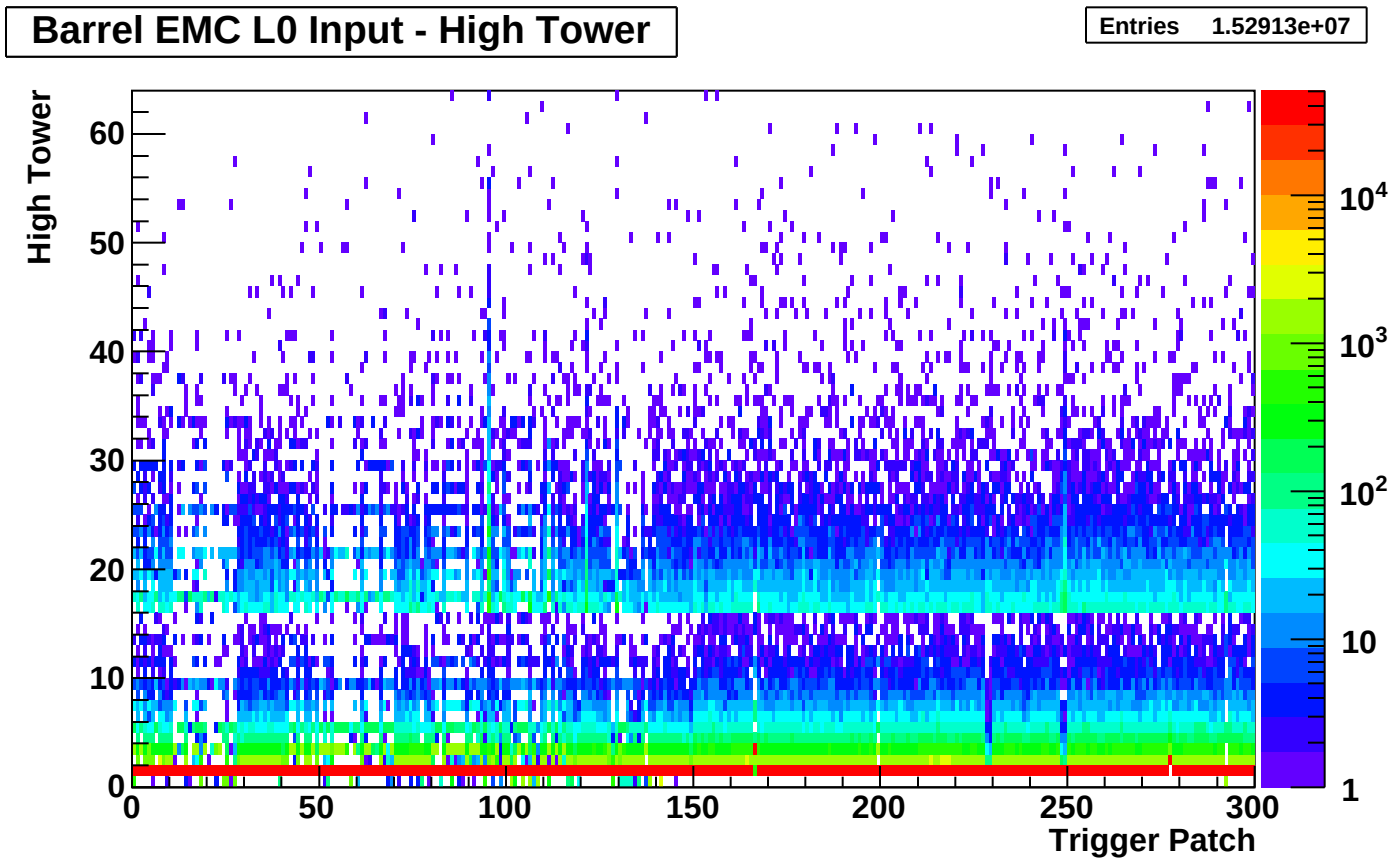
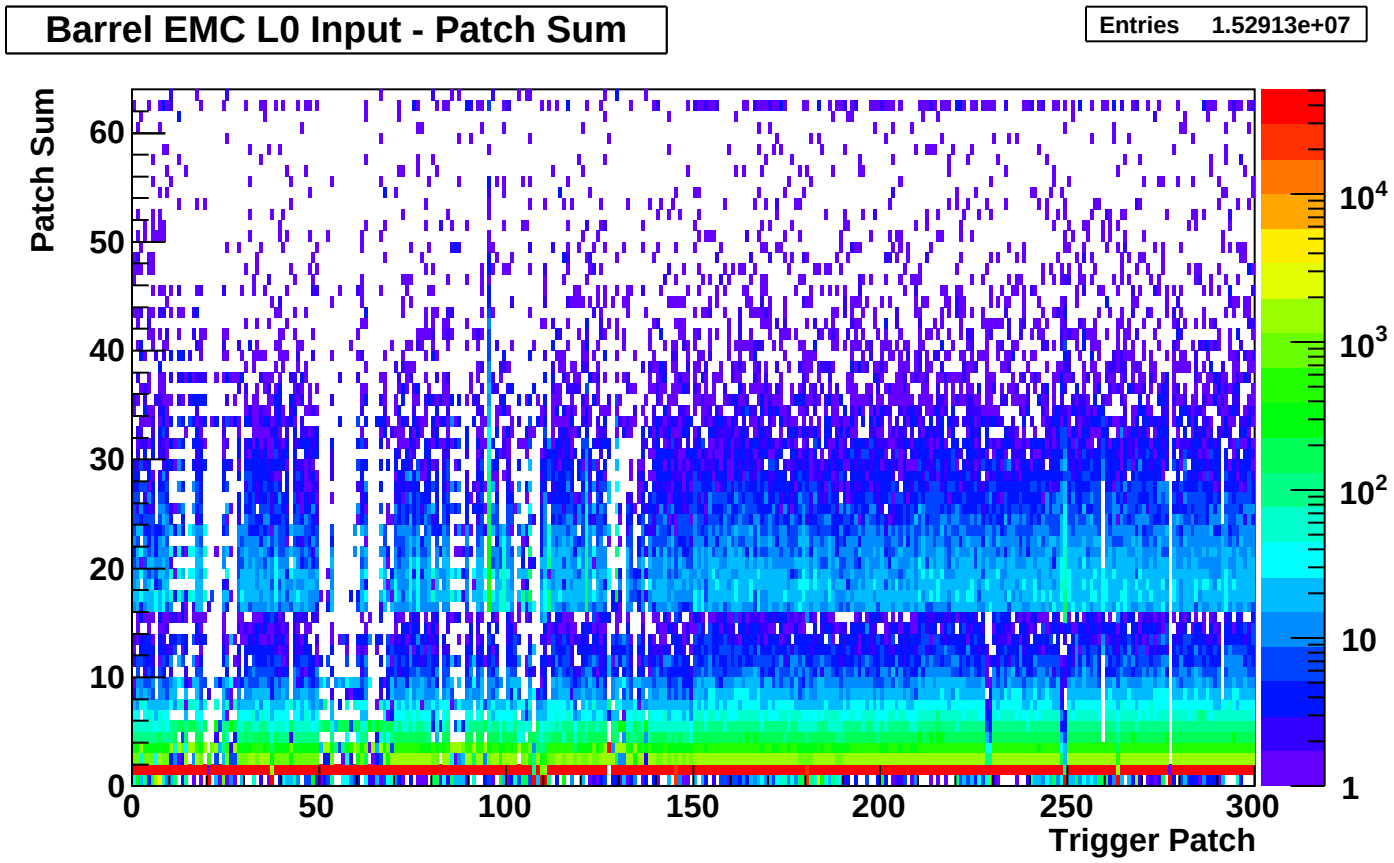
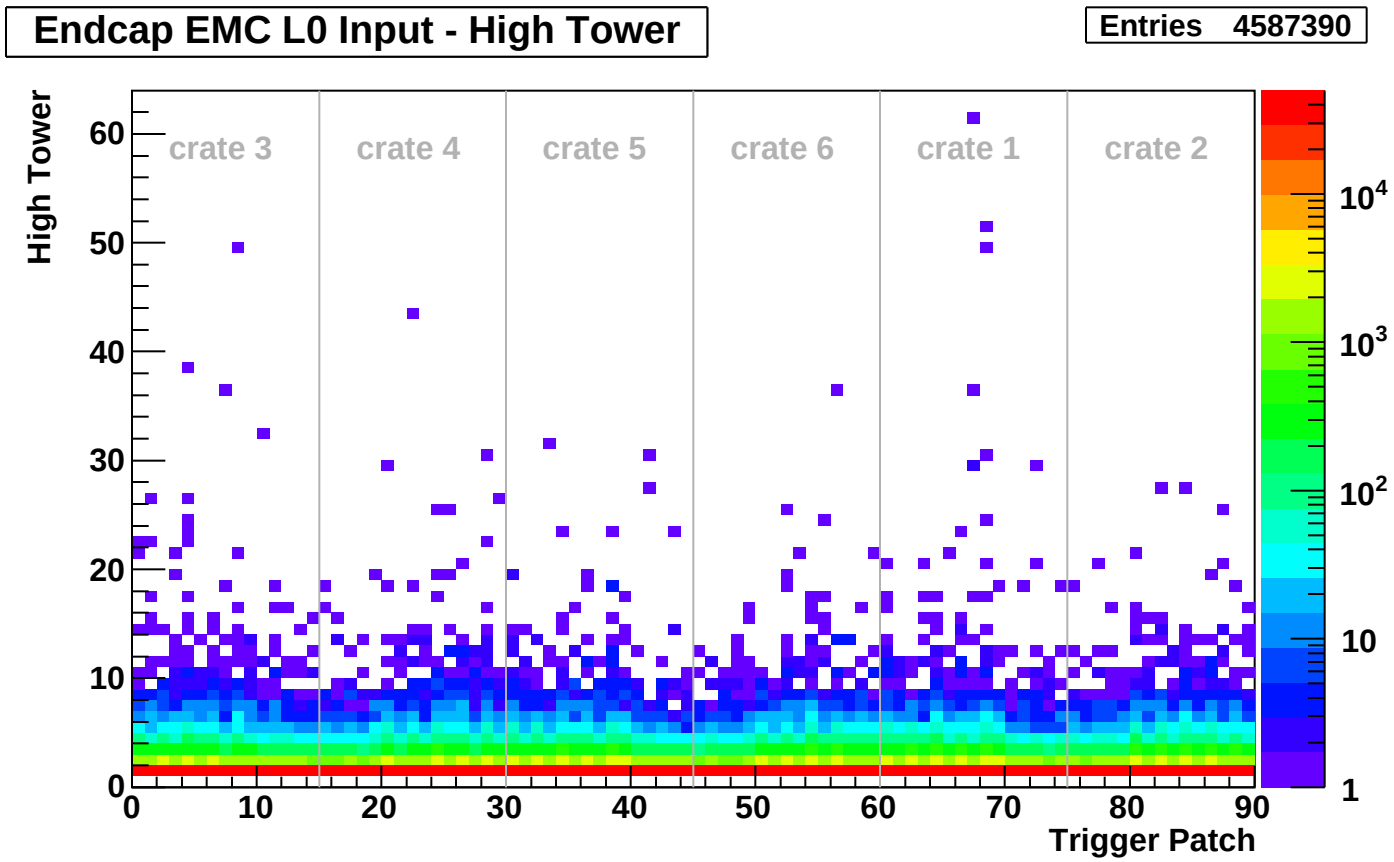
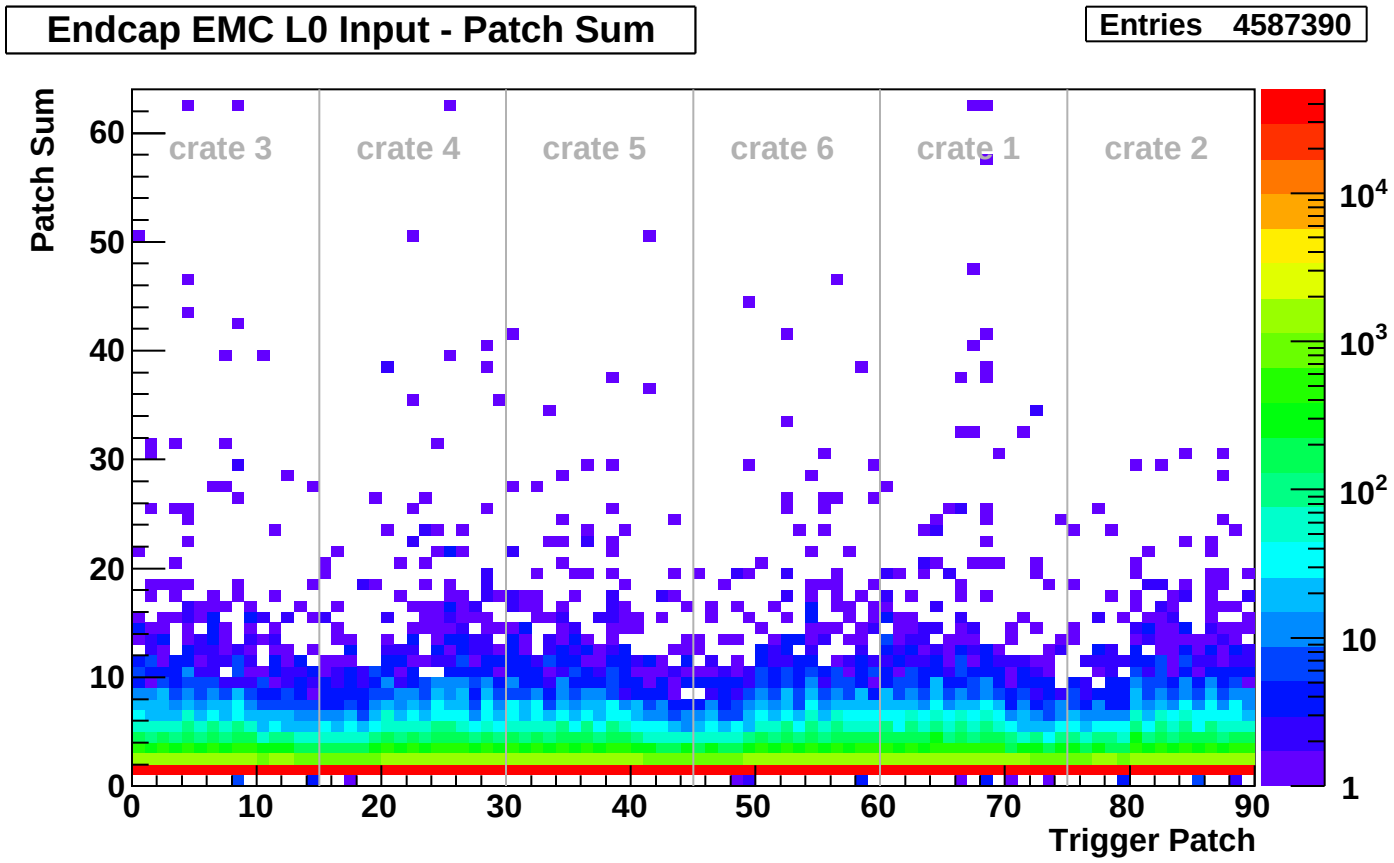
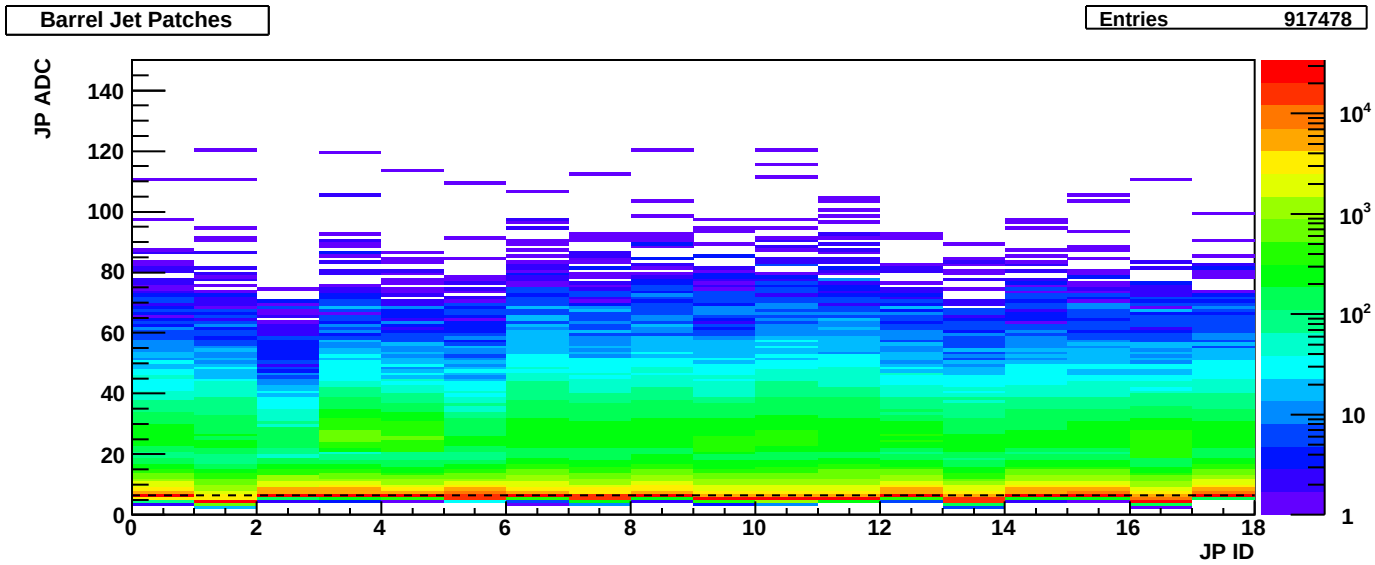
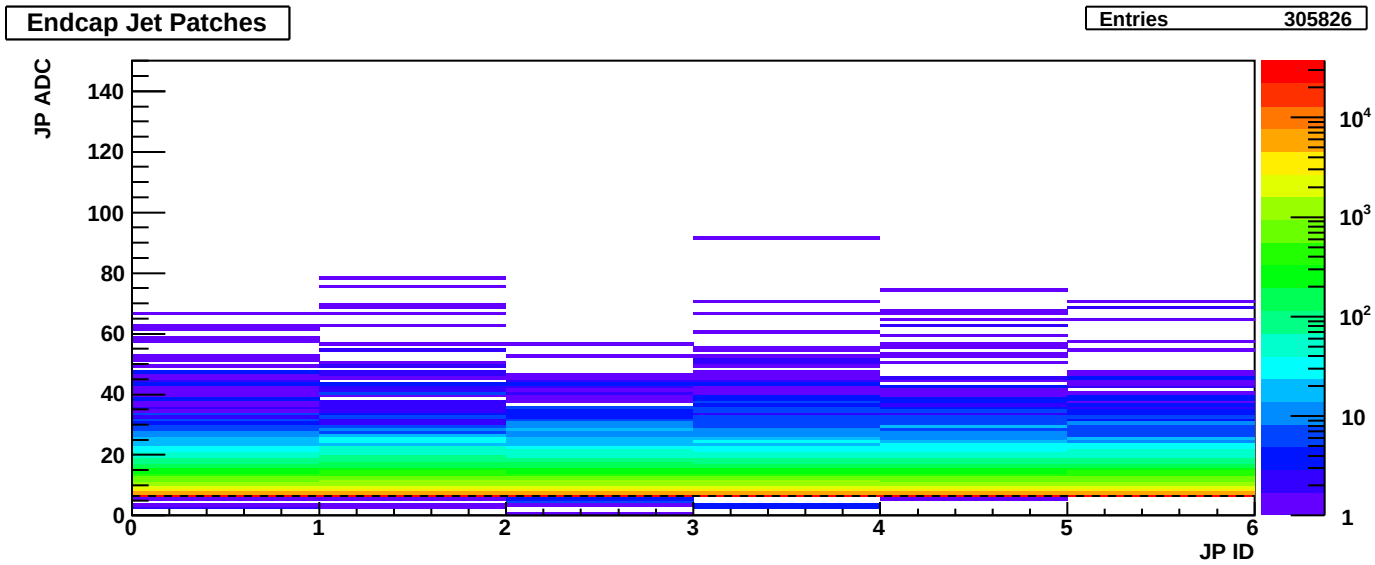

Barrel EMC L0 Input - High Tower
Entries 1.52913e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

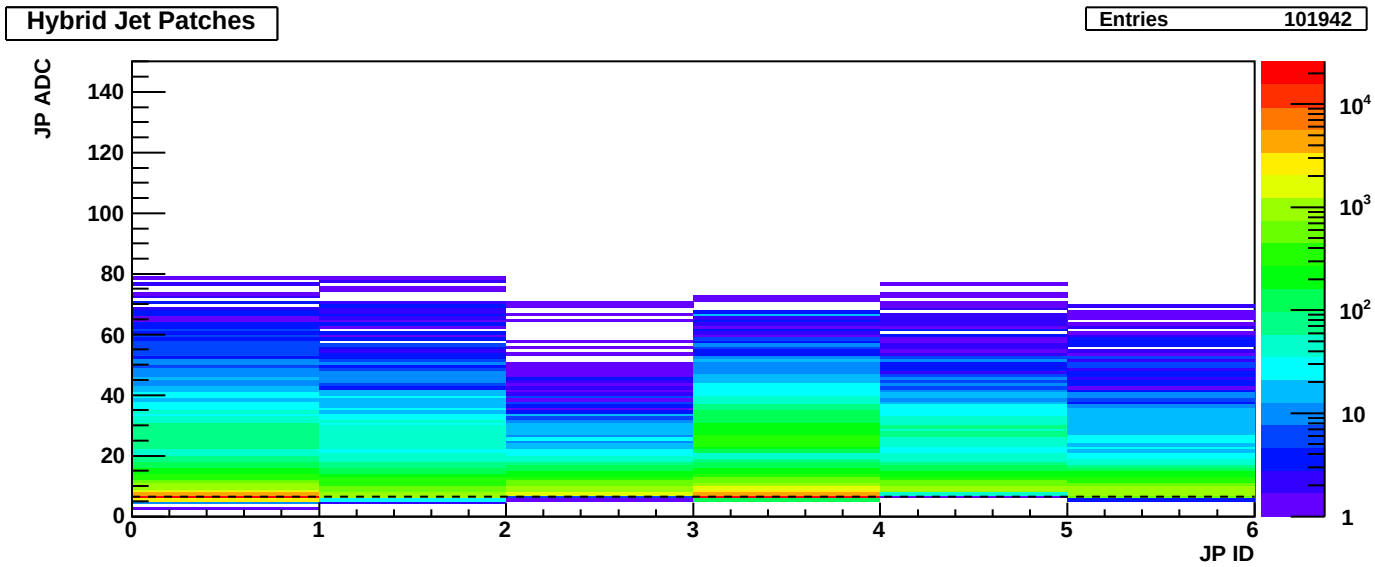

Barrel EMC L0 Input - Patch Sum
Entries 1.52913e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

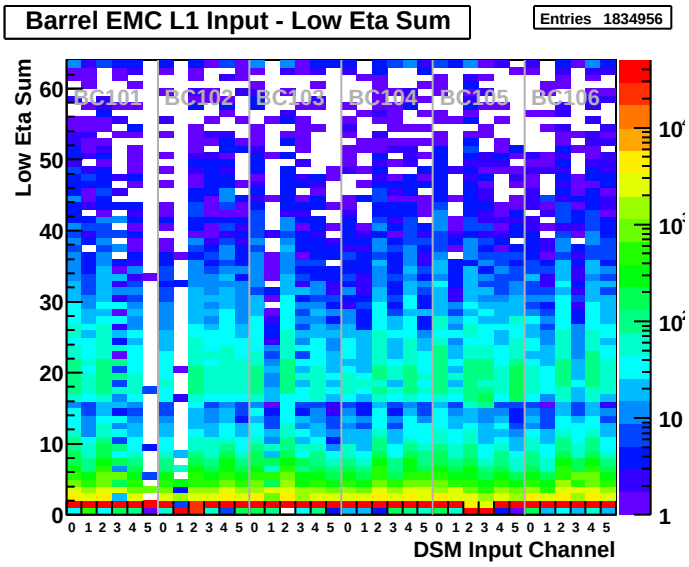

Endcap EMC L0 Input - High Tower
Entries 4587390
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

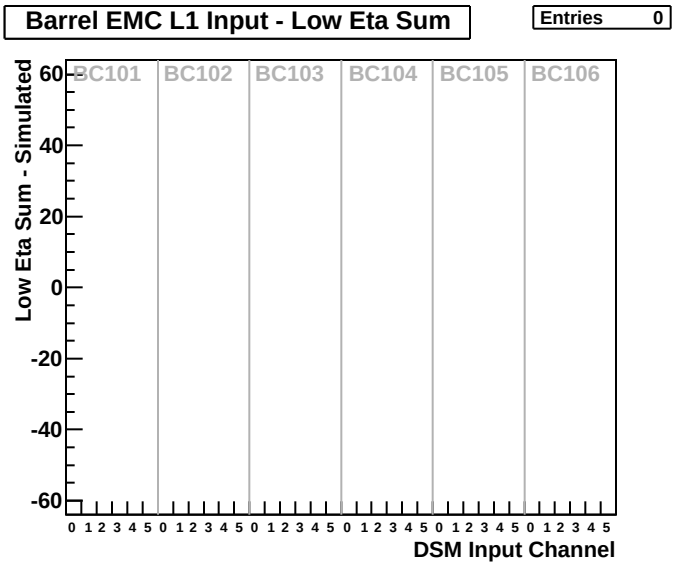

Endcap EMC L0 Input - Patch Sum
Entries 4587390
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

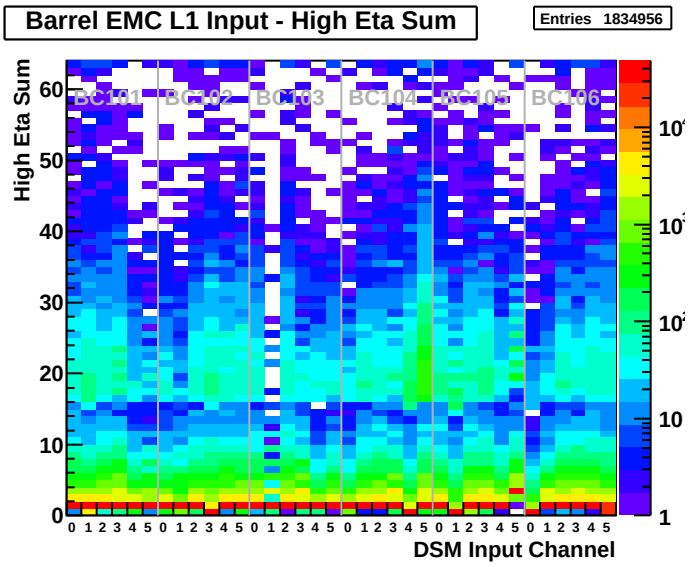

Barrel Jet Patches
Entries 917478
JP ADC
JP ID

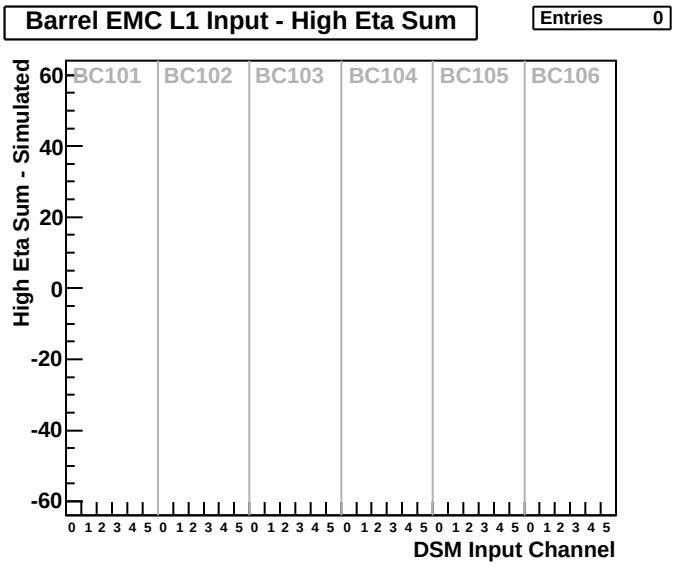

Endcap Jet Patches
Entries 305826
JP ADC
JP ID

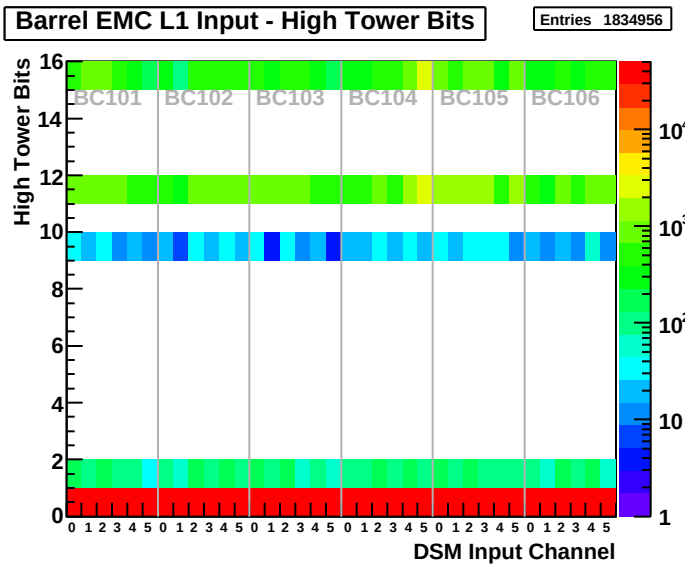

Hybrid Jet Patches
Entries 101942
JP ADC
JP ID

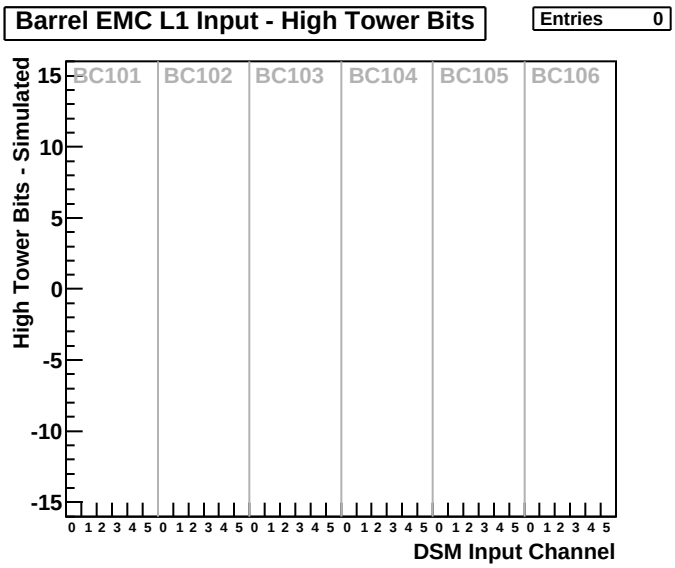

Barrel EMC L1 Input - Low Eta Sum
Entries 1834956
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

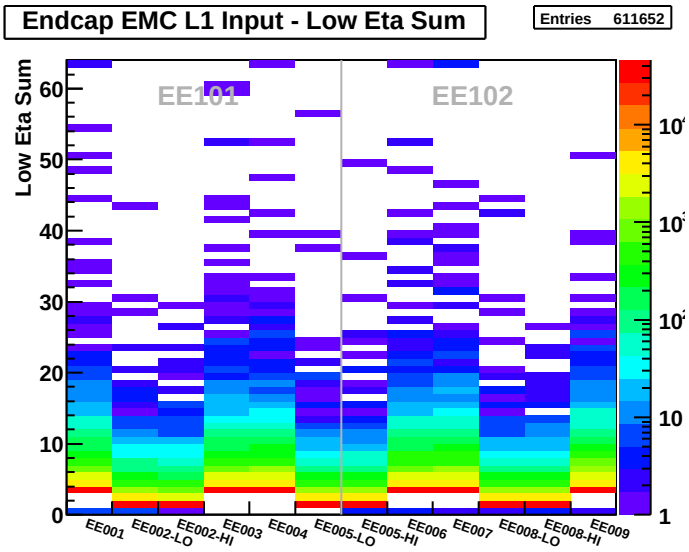

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

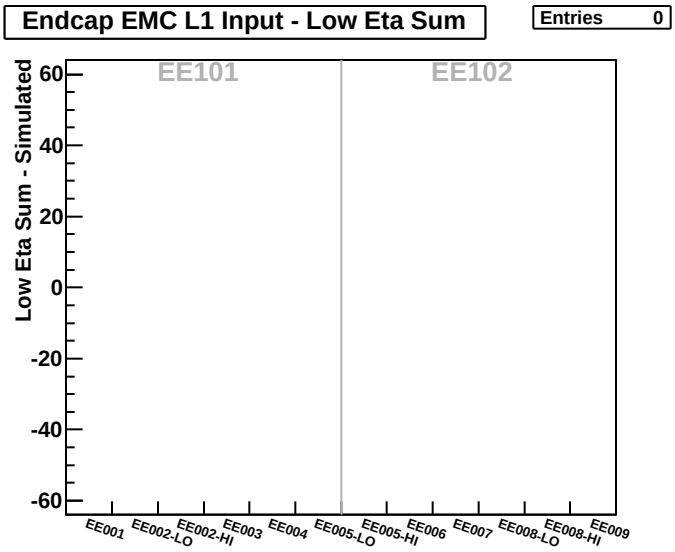

Barrel EMC L1 Input - High Eta Sum
Entries 1834956
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

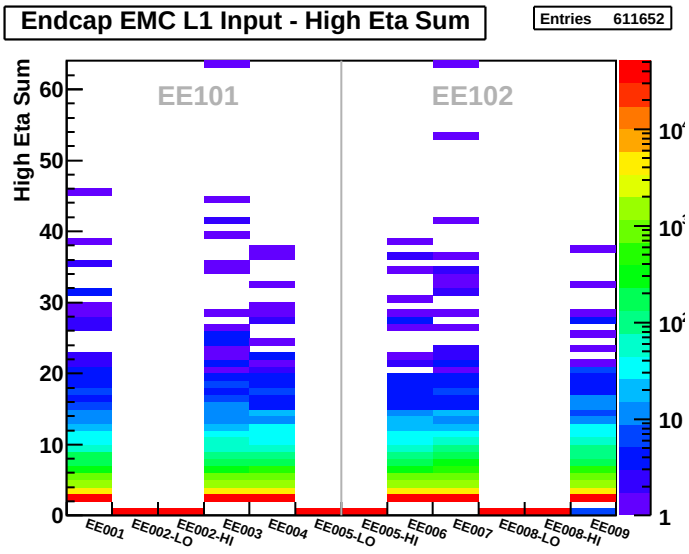

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

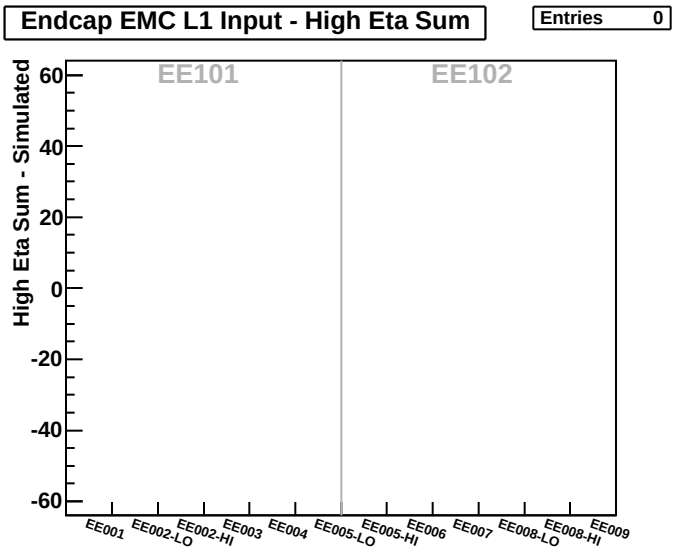

Barrel EMC L1 Input - High Tower Bits
Entries 1834956
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

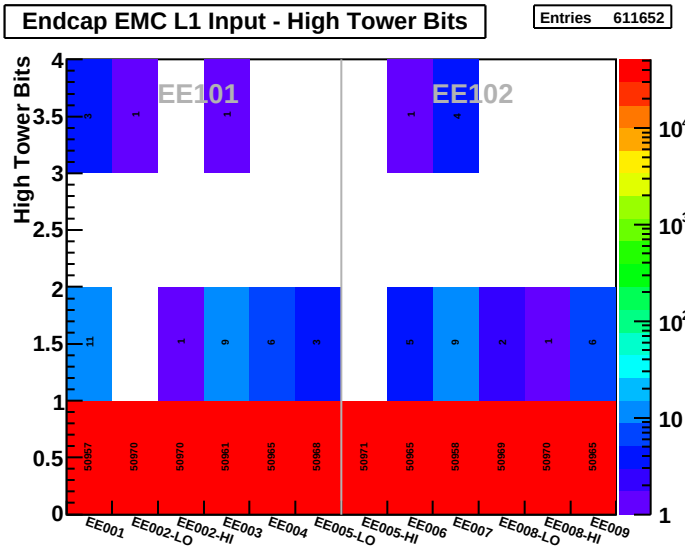

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

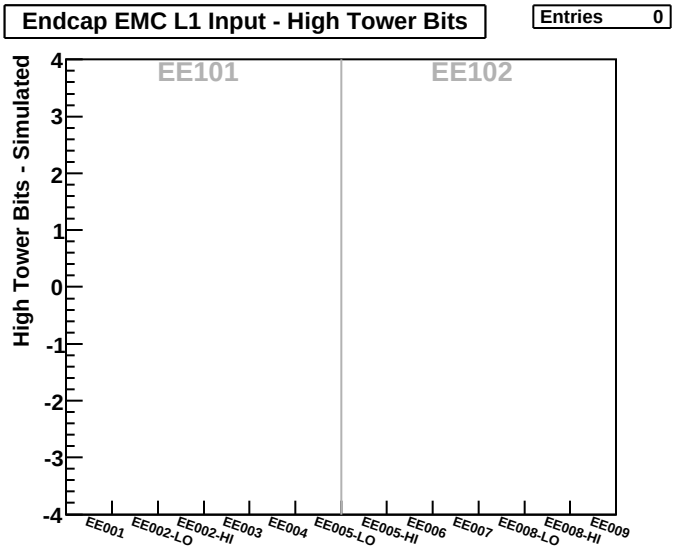

Endcap EMC L1 Input - Low Eta Sum
Entries 611652
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

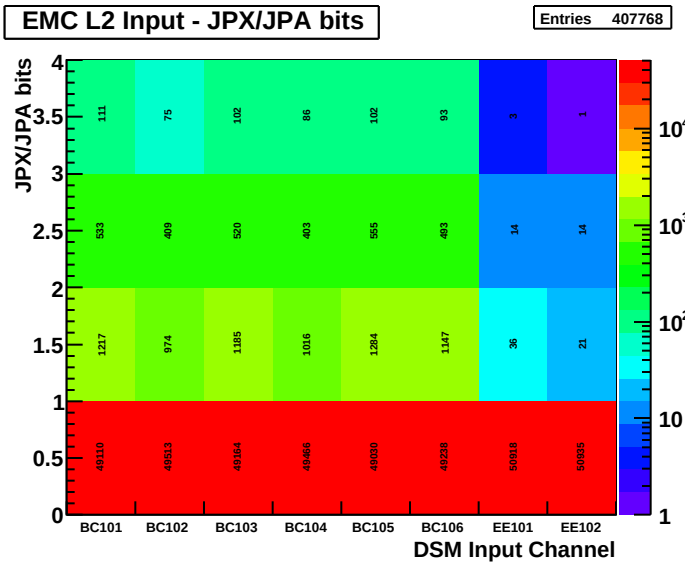

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

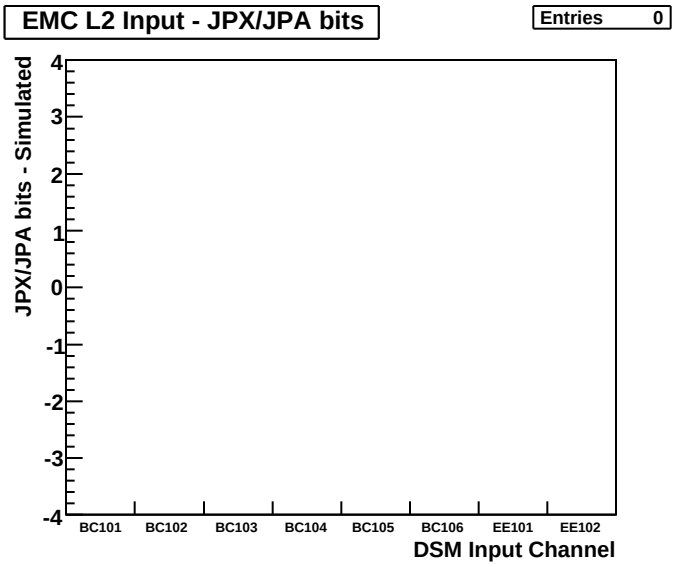

Endcap EMC L1 Input - High Eta Sum
Entries 611652
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

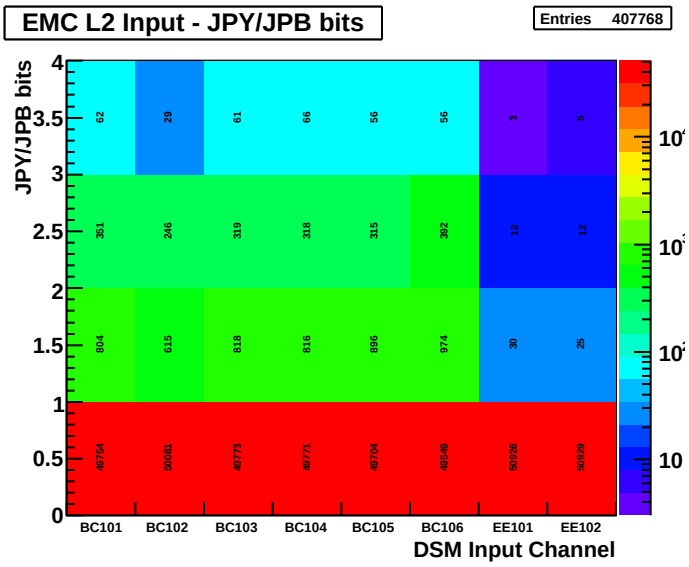

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

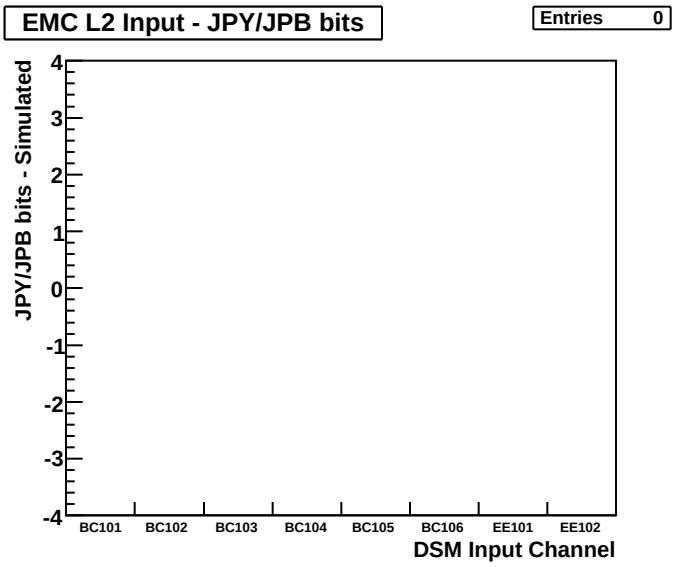

Endcap EMC L1 Input - High Tower Bits
Entries 611652
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

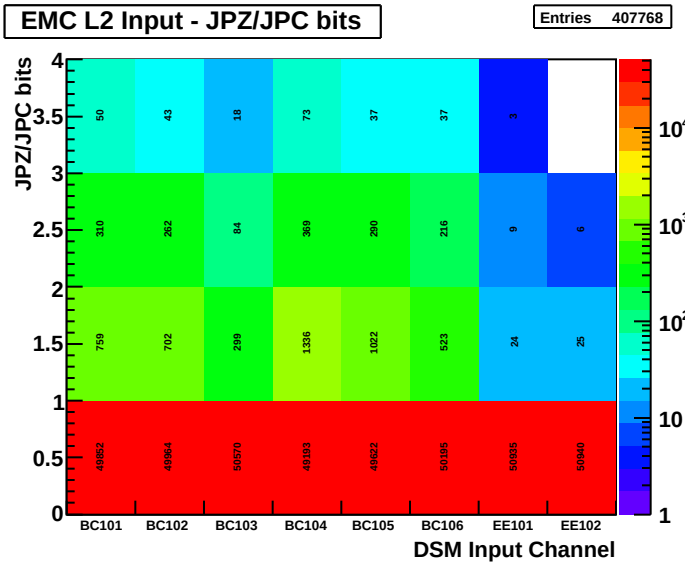

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

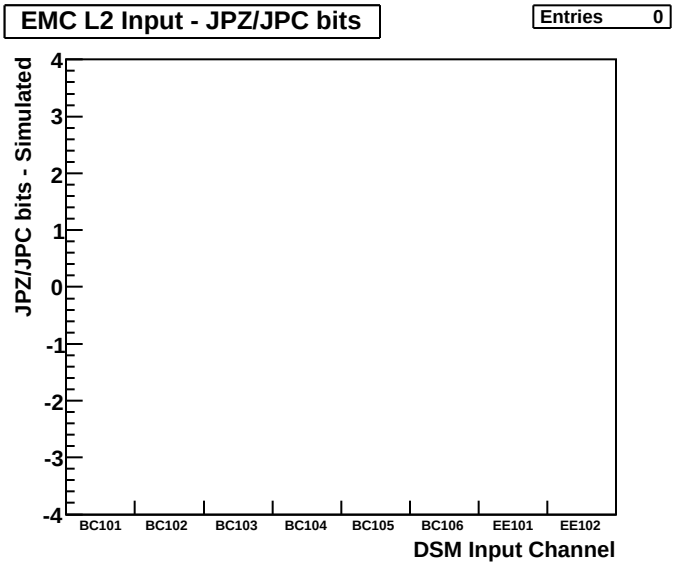

EMC L2 Input - JPX/JPA bits
Entries 407768
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
111 75 102 86 102 93 3 1
533 409 520 403 555 403 14 14
1217 974 1185 1016 1284 1147 36 21
49110 49513 49164 49466 49030 49238 50918 50935

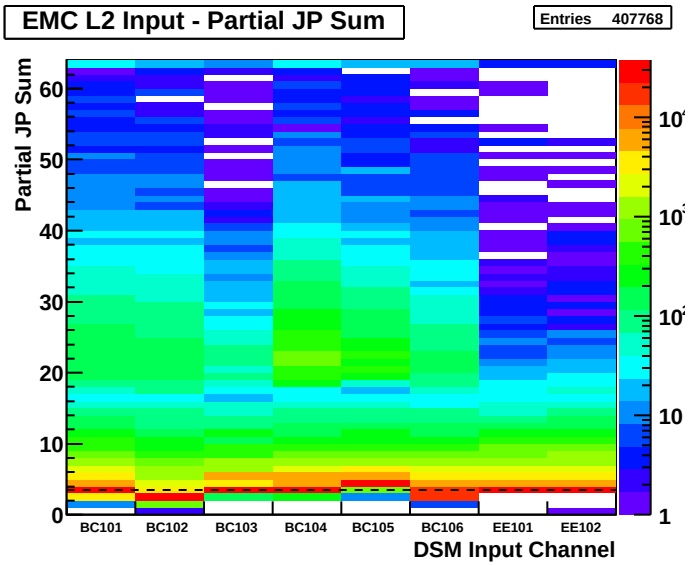

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

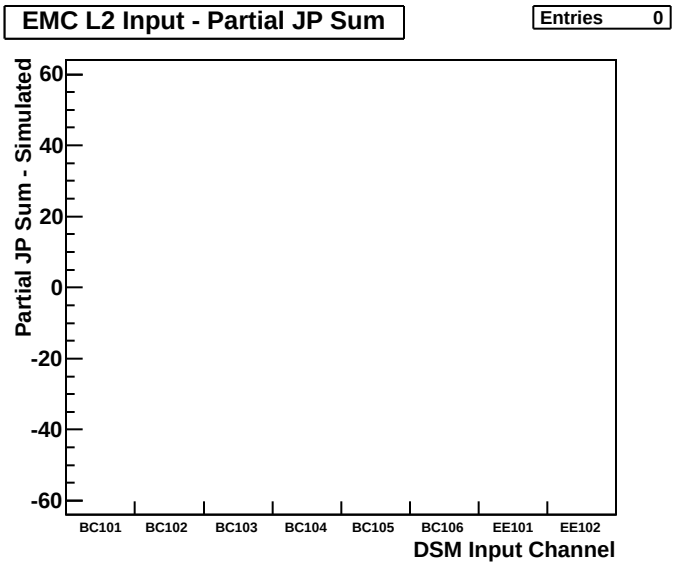

EMC L2 Input - JPY/JPB bits
Entries 407768
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
62 29 61 66 56 56 3 5
351 246 319 318 315 392 12 12
804 615 818 816 896 974 30 25
49754 50081 49773 49771 49704 49549 50926 50929

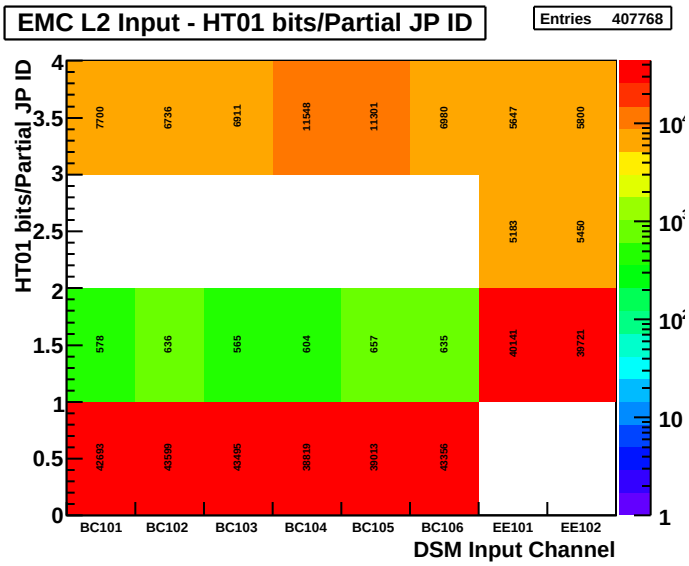

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

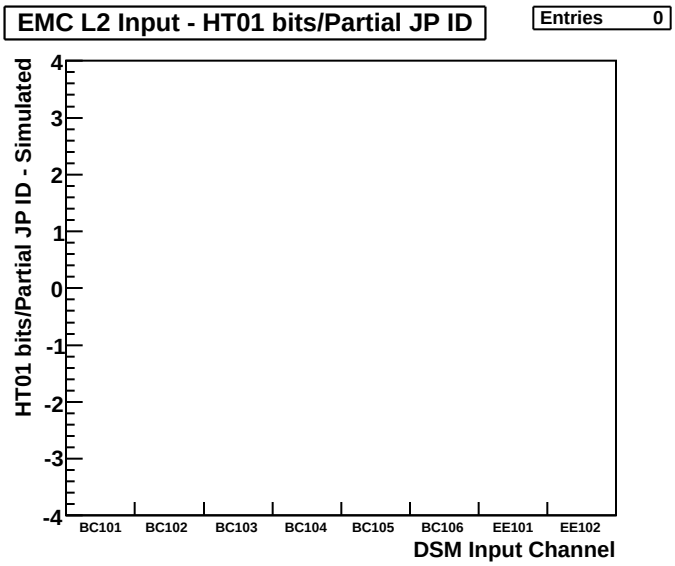

EMC L2 Input - JPZ/JPC bits
Entries 407768
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
50 43 18 73 37 37 3
310 262 84 369 290 216 9 6
759 702 299 1336 1022 523 24 25
49852 49864 50570 49193 49622 50195 50935 50940

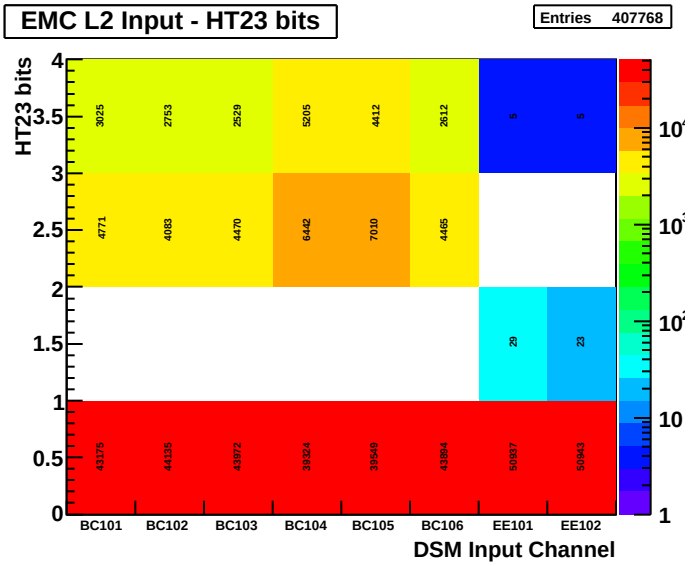

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

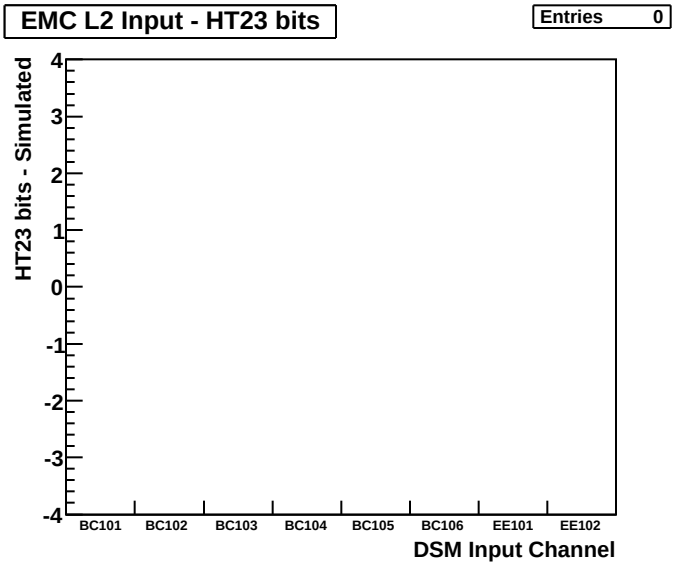

EMC L2 Input - Partial JP Sum
Entries 407768
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

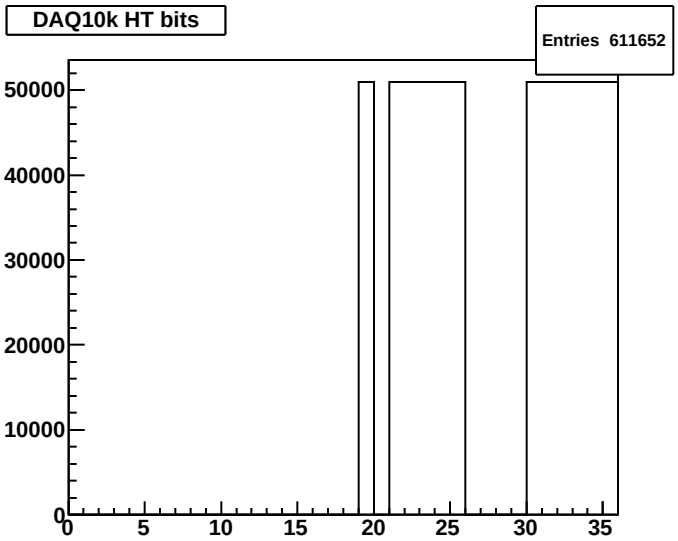

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

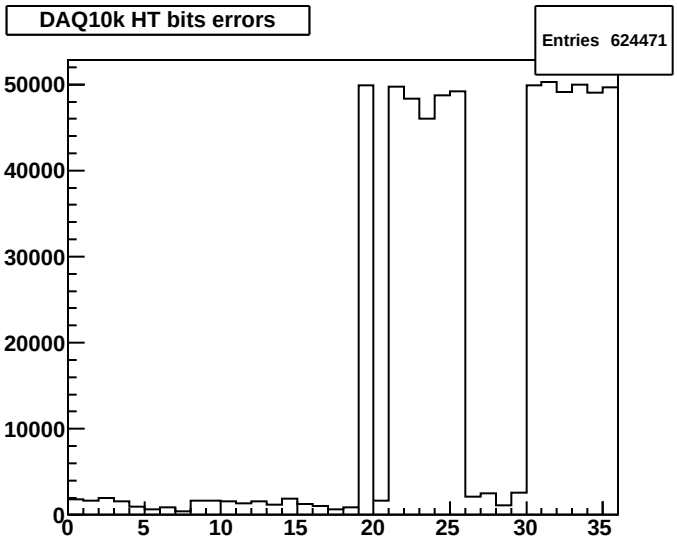

EMC L2 Input - HT01 bits/Partial JP ID
Entries 407768
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

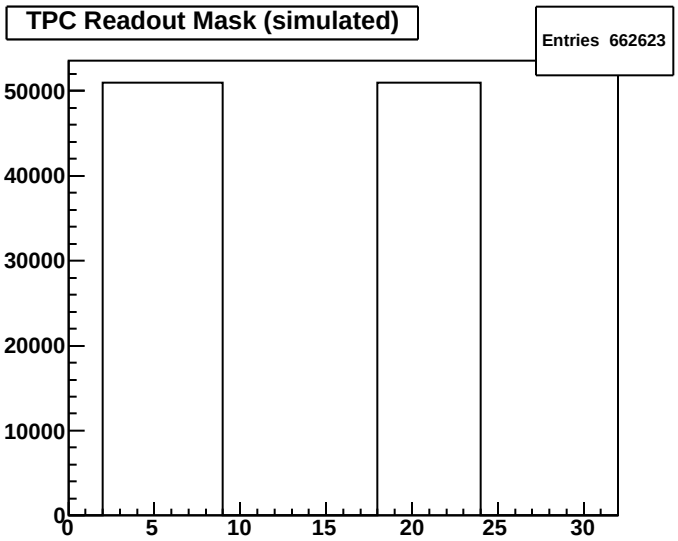

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

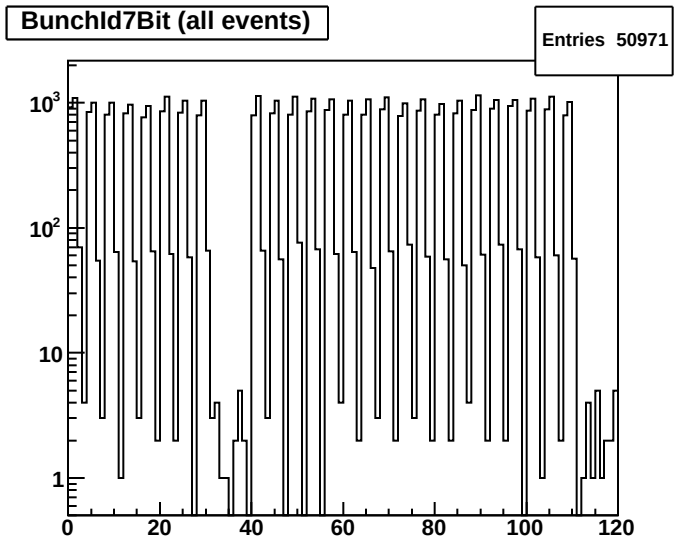

EMC L2 Input - HT23 bits
Entries 407768
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

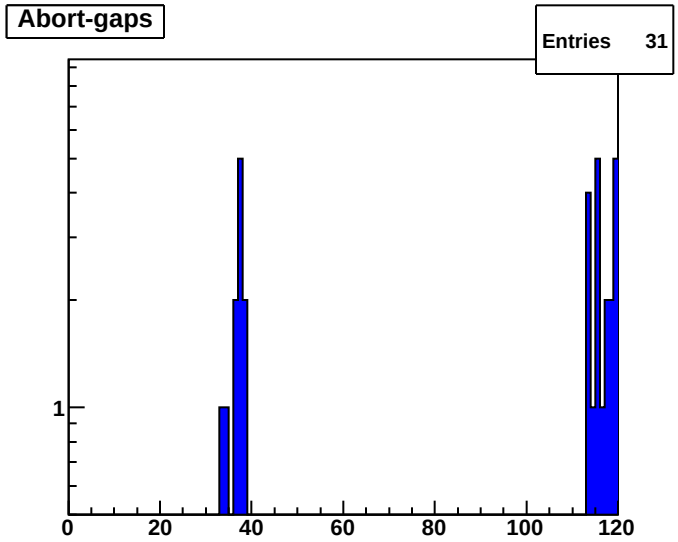

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

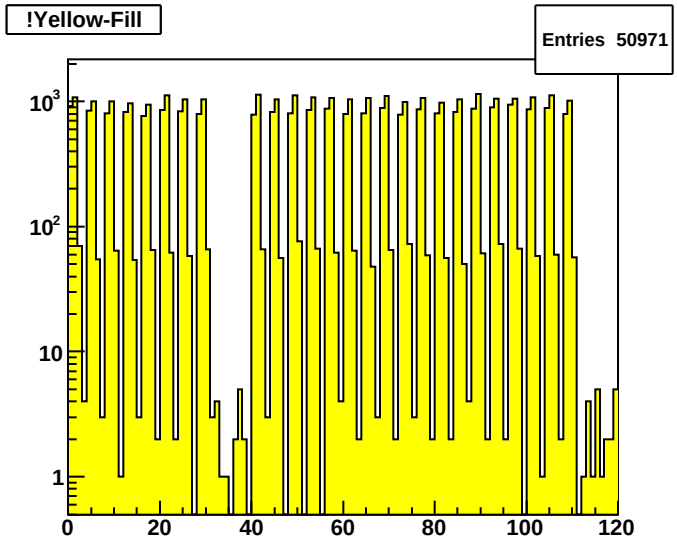

DAQ10k HT bits
Entries 611652
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

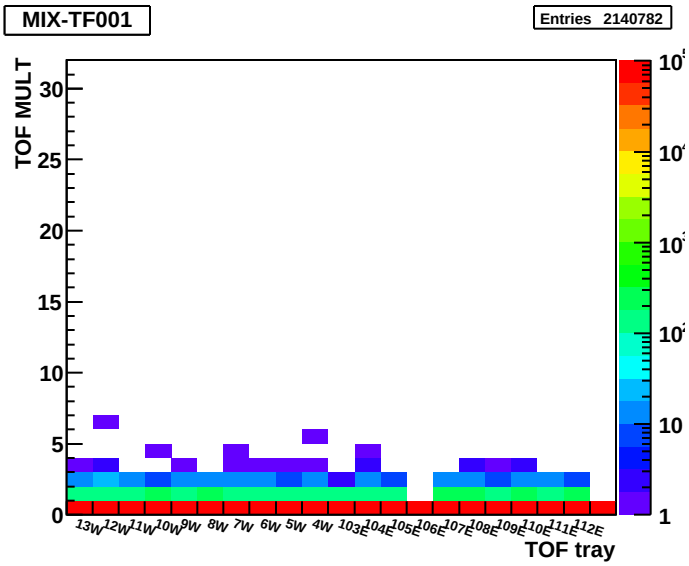

DAQ10k HT bits errors
Entries 624471
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

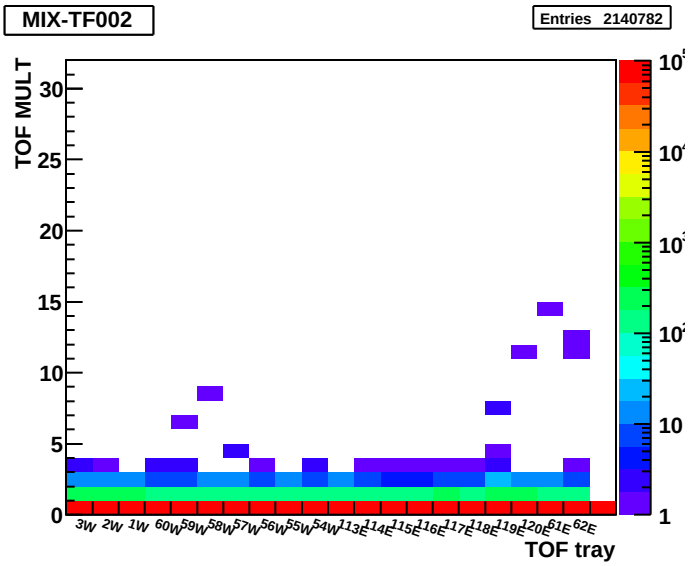

TPC Readout Mask (simulated)
Entries 662623
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

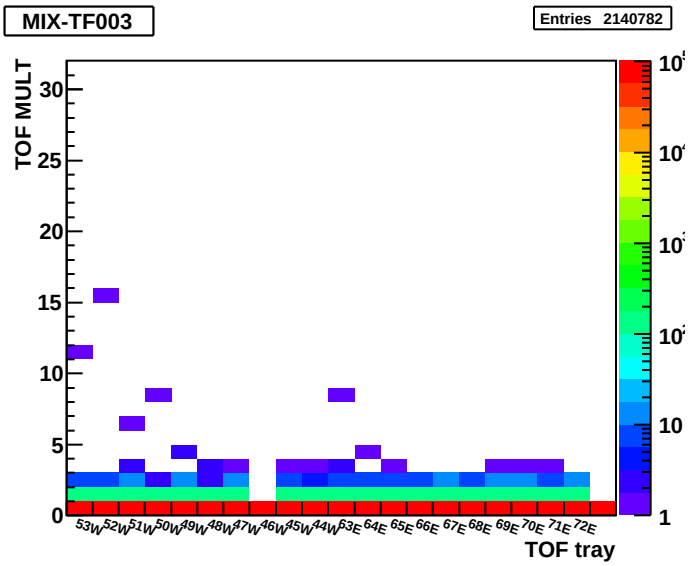

BunchId7Bit (all events)
Entries 50971
10^3
10^2
10
1
0 20 40 60 80 100 120

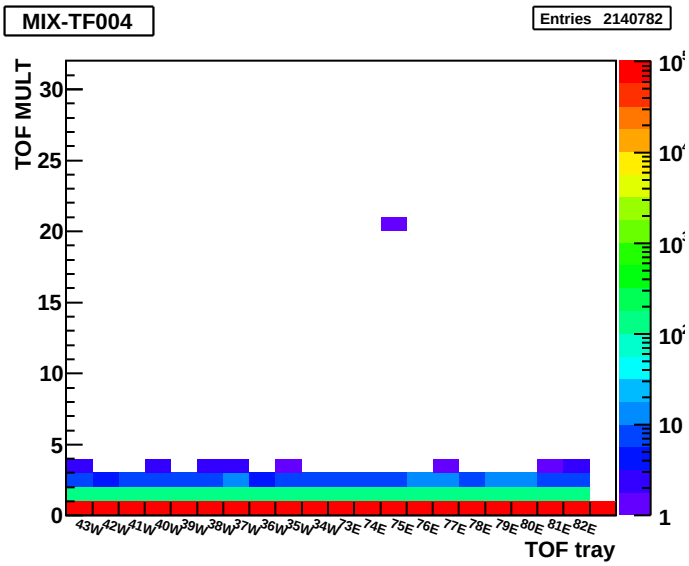

Abort-gaps
Entries 31
1
0 20 40 60 80 100 120

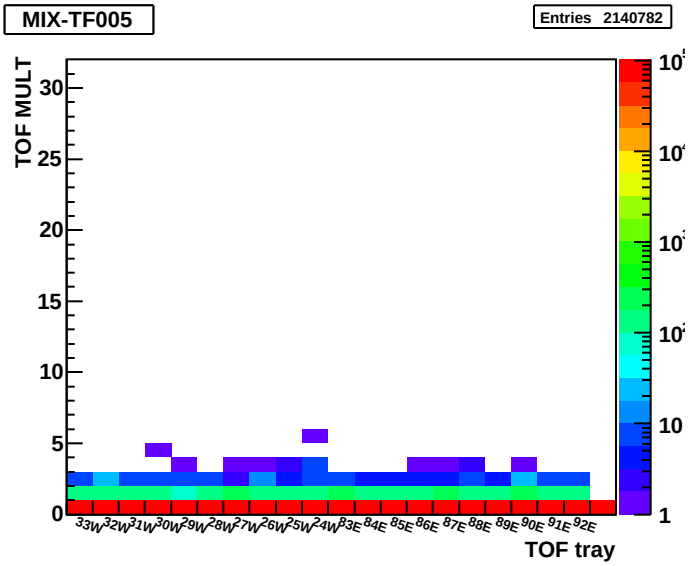

!Yellow-Fill
Entries 50971
10^3
10^2
10
1
0 20 40 60 80 100 120

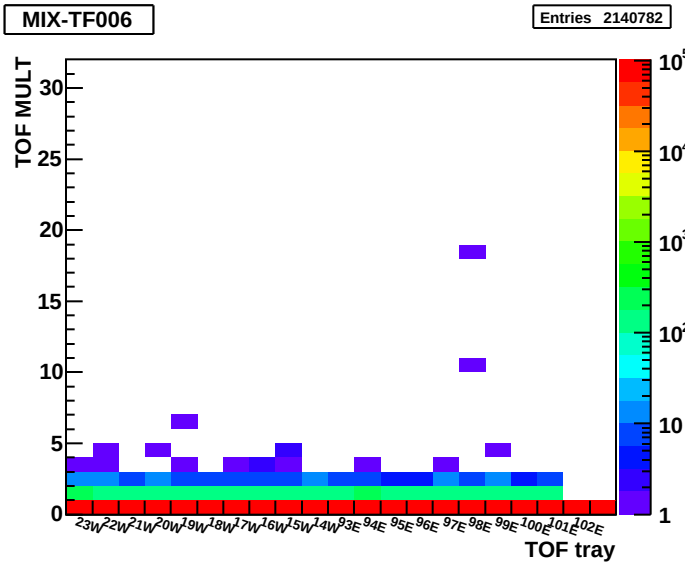

MIX-TF001
Entries 2140782
TOF MULT
TOF tray

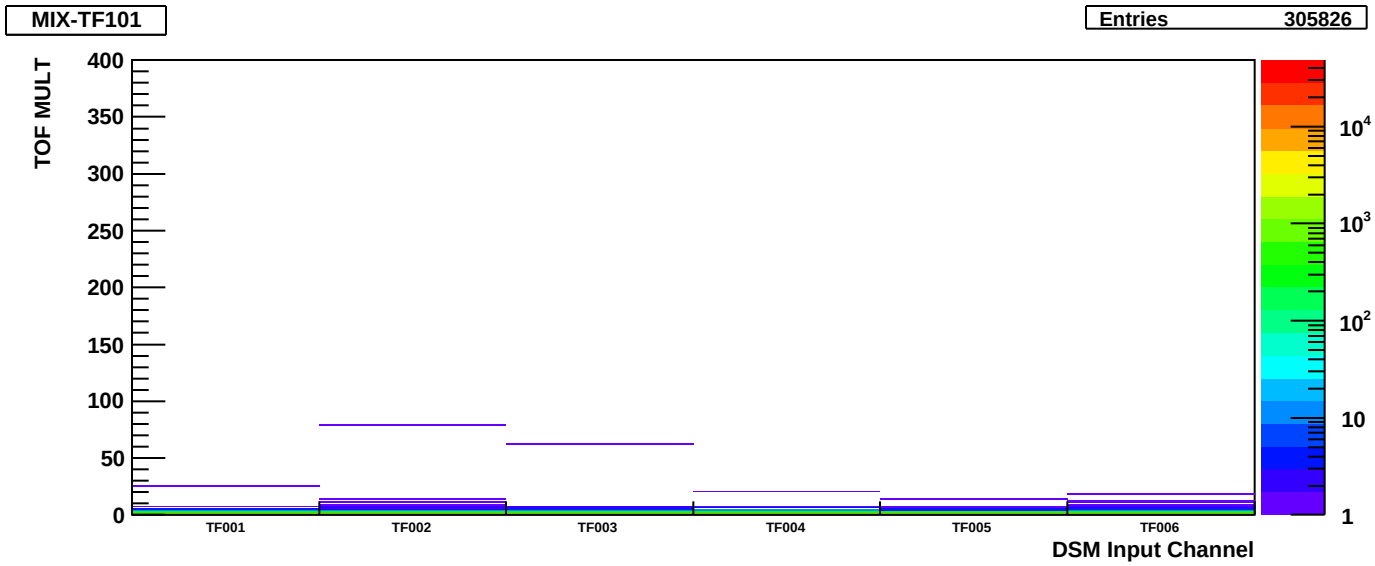

MIX-TF002
Entries 2140782
TOF MULT
TOF tray

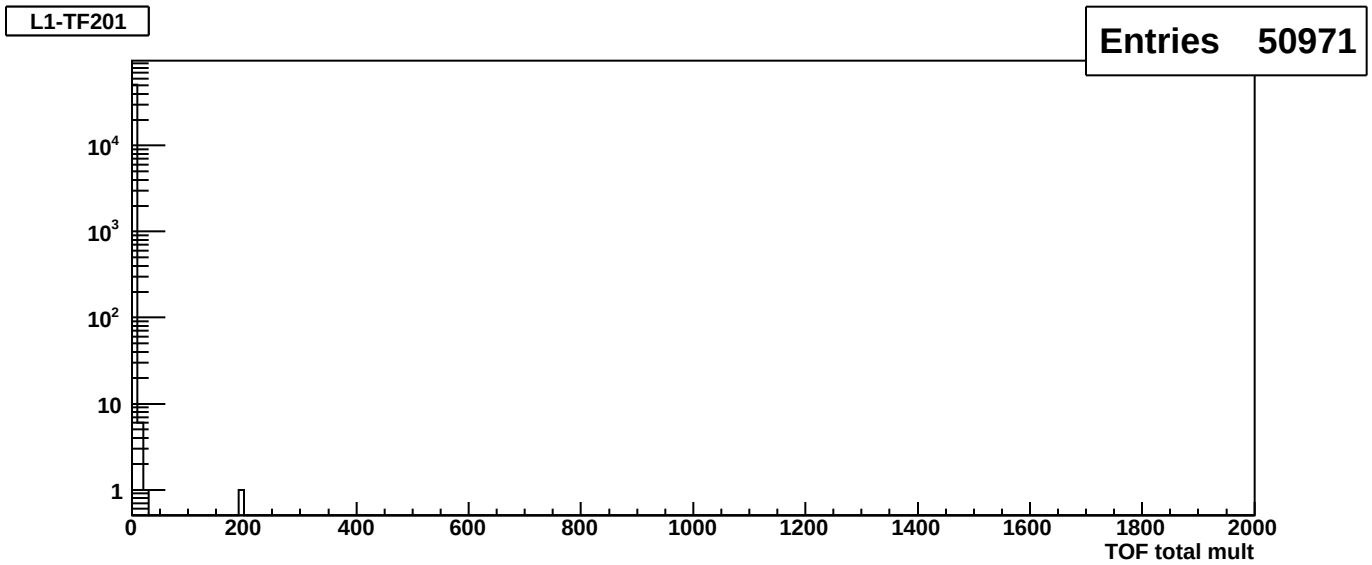

MIX-TF003
Entries 2140782
TOF MULT
TOF tray

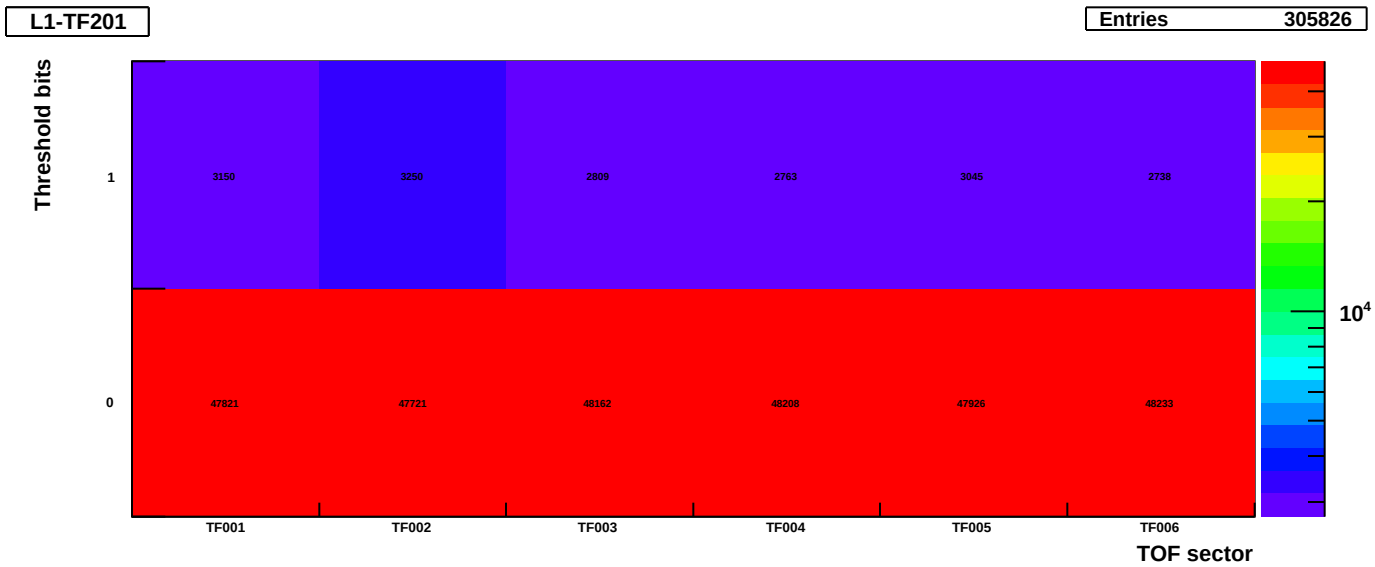

MIX-TF004
Entries 2140782
TOF MULT
TOF tray

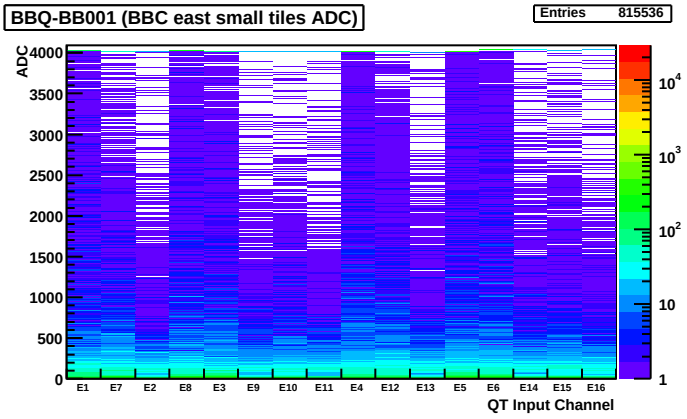

MIX-TF005
Entries 2140782
TOF MULT
TOF tray

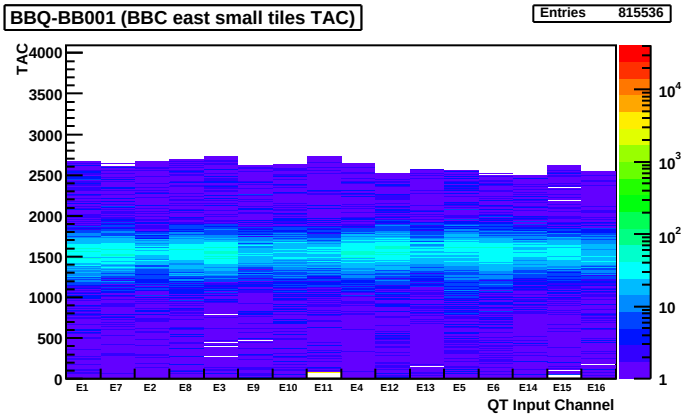

MIX-TF006
Entries 2140782
TOF MULT
TOF tray

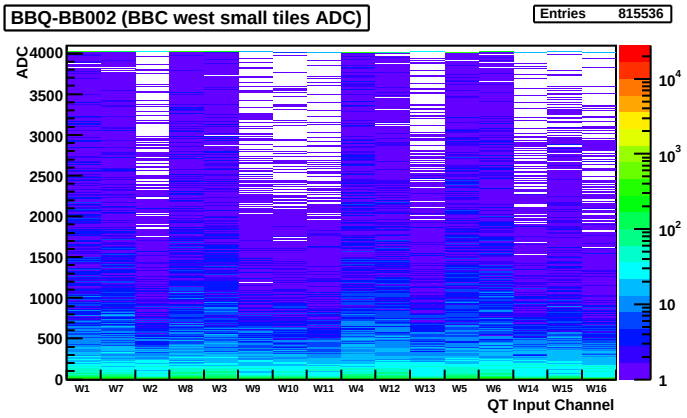

MIX-TF101
Entries 305826
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

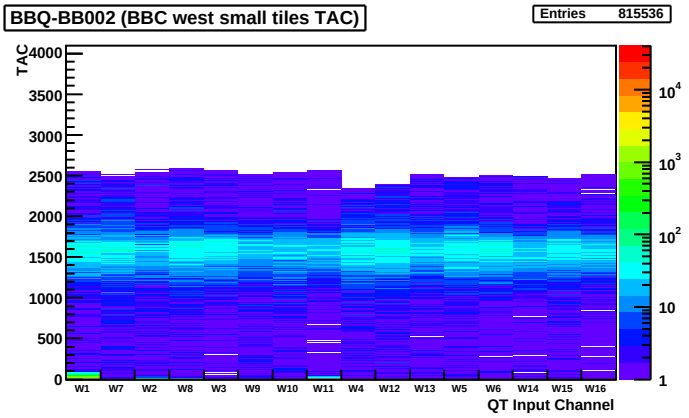

L1-TF201
Entries 50971
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

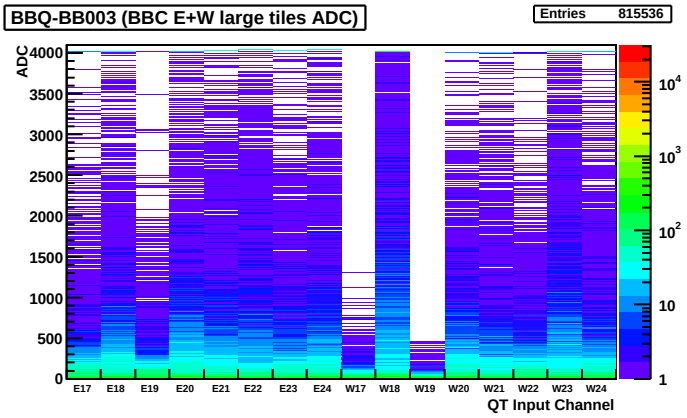

L1-TF201
Entries 305826
Threshold bits
1
0
3150
3250
2809
2763
3045
2738
47821
47721
48162
48208
47926
48233
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

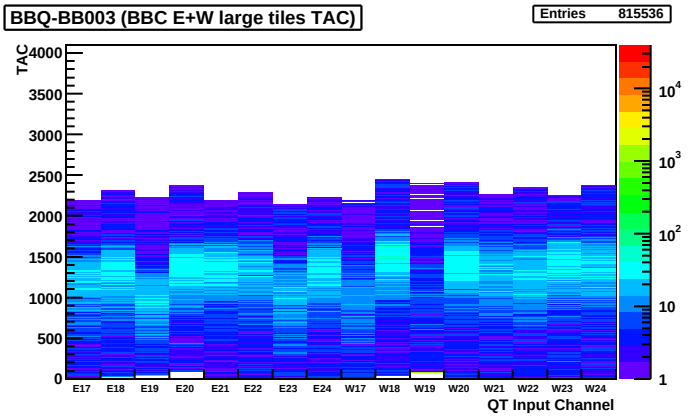

BBQ-BB001 (BBC east small tiles ADC)
Entries 815536
ADC
QT Input Channel

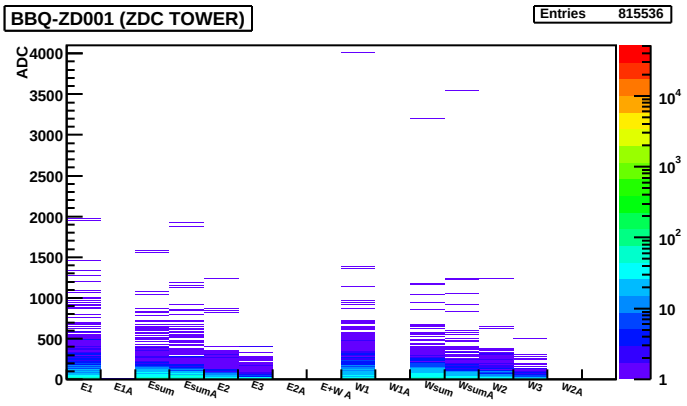

BBQ-BB001 (BBC east small tiles TAC)
Entries 815536
TAC
QT Input Channel

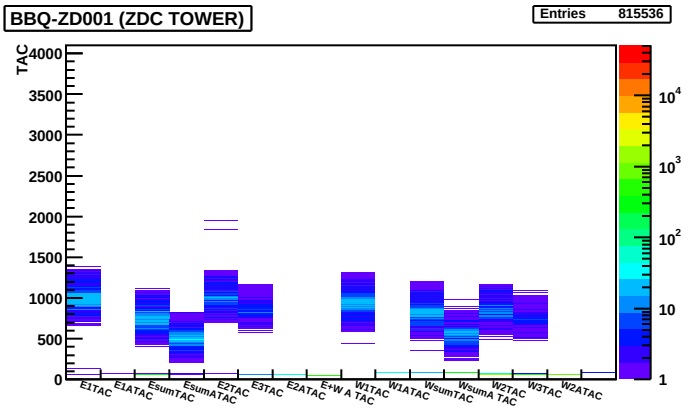

BBQ-BB002 (BBC west small tiles ADC)
Entries 815536
ADC
QT Input Channel

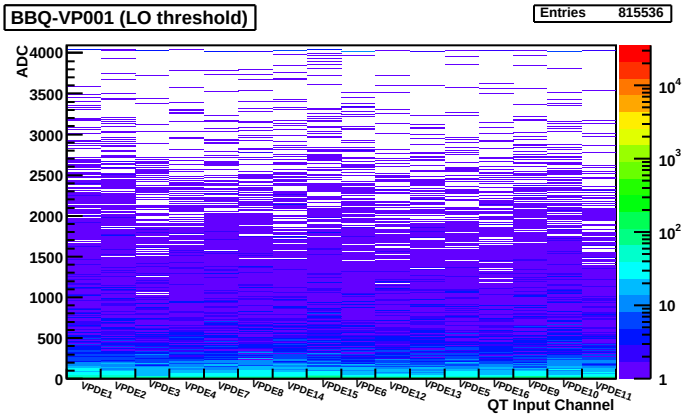

BBQ-BB002 (BBC west small tiles TAC)
Entries 815536
TAC
QT Input Channel

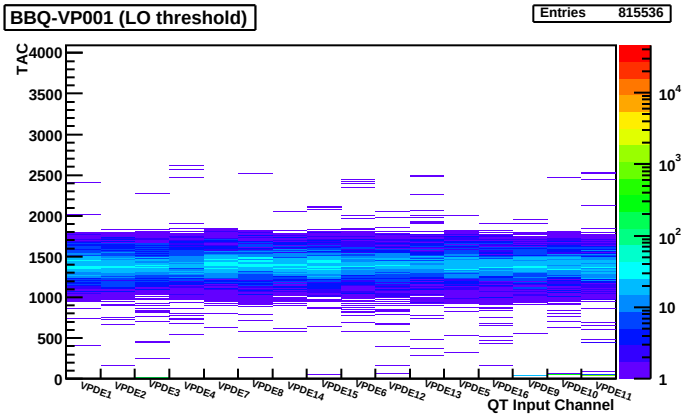

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 815536
ADC
QT Input Channel

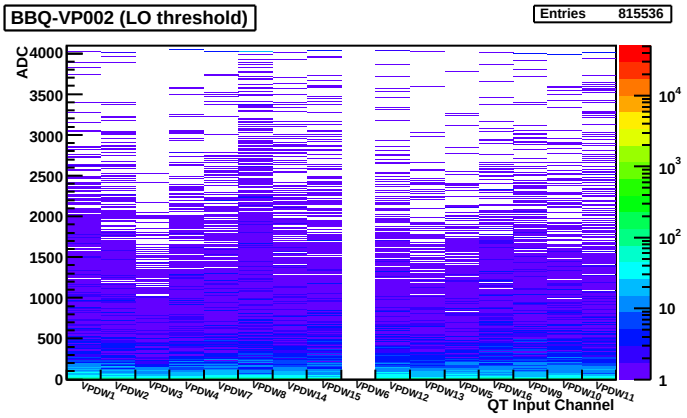

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 815536
TAC
QT Input Channel

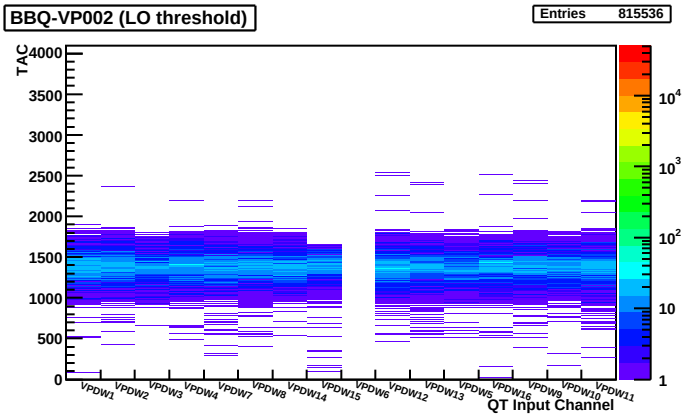

BBQ-ZD001 (ZDC TOWER)
Entries 815536
ADC

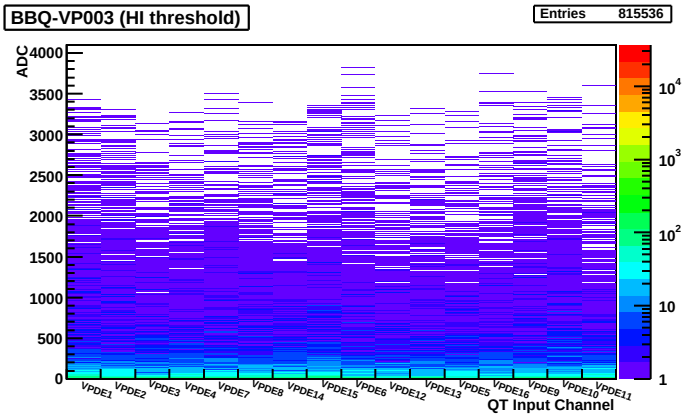

BBQ-ZD001 (ZDC TOWER)
Entries 815536
TAC

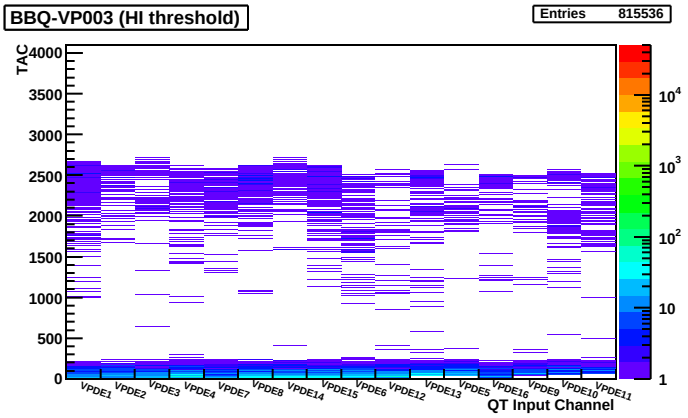

BBQ-VP001 (LO threshold)
Entries 815536
ADC
QT Input Channel

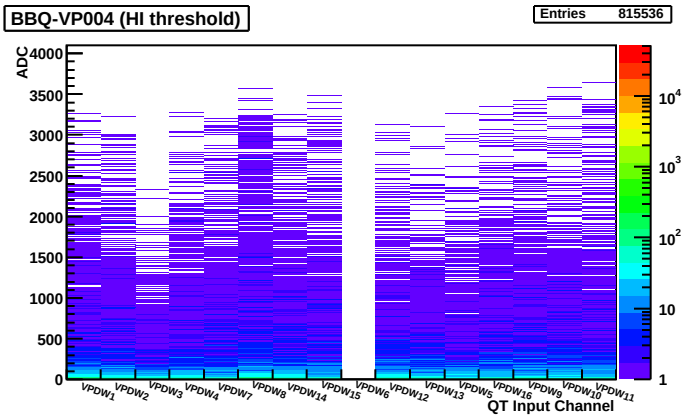

BBQ-VP001 (LO threshold)
Entries 815536
TAC
QT Input Channel

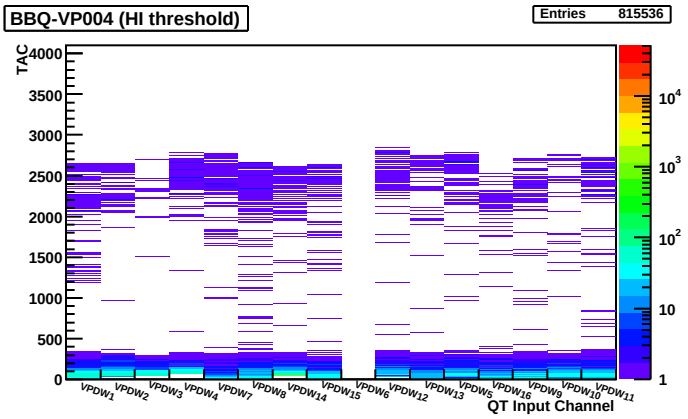

BBQ-VP002 (LO threshold)
Entries 815536
ADC
QT Input Channel

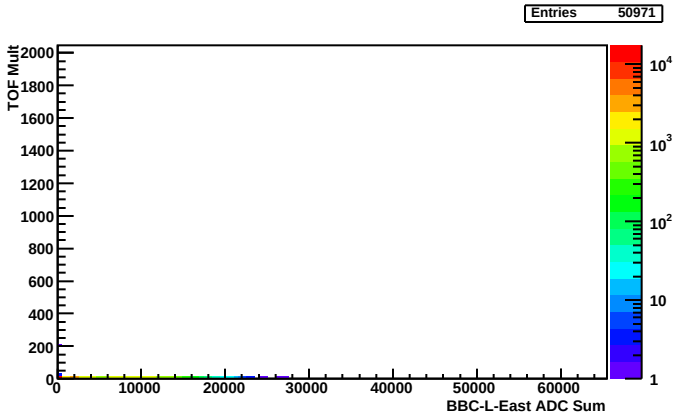

BBQ-VP002 (LO threshold)
Entries 815536
TAC
QT Input Channel

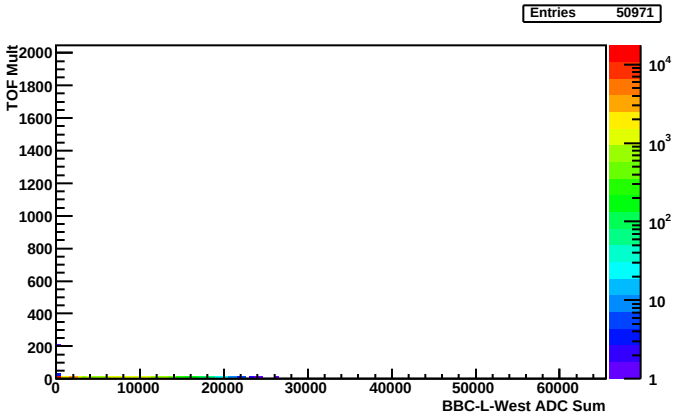

BBQ-VP003 (HI threshold)
Entries 815536
ADC
QT Input Channel

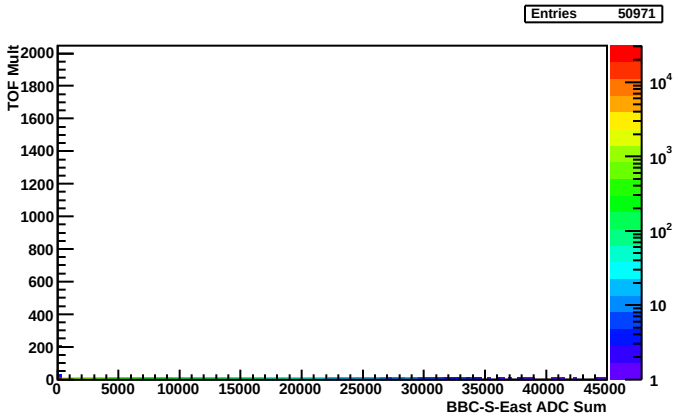

BBQ-VP003 (HI threshold)
Entries 815536
TAC
QT Input Channel

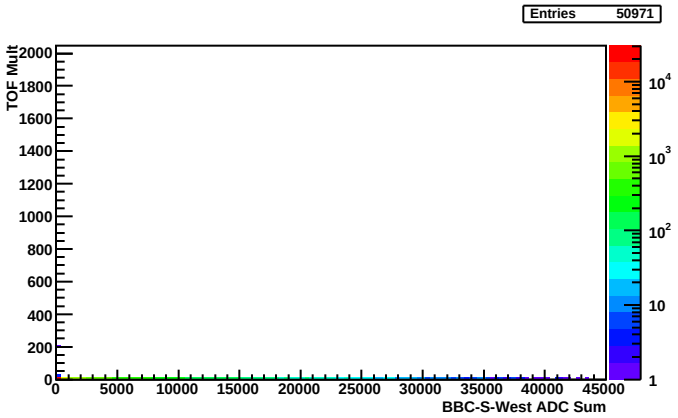

BBQ-VP004 (HI threshold)
Entries 815536
ADC
QT Input Channel

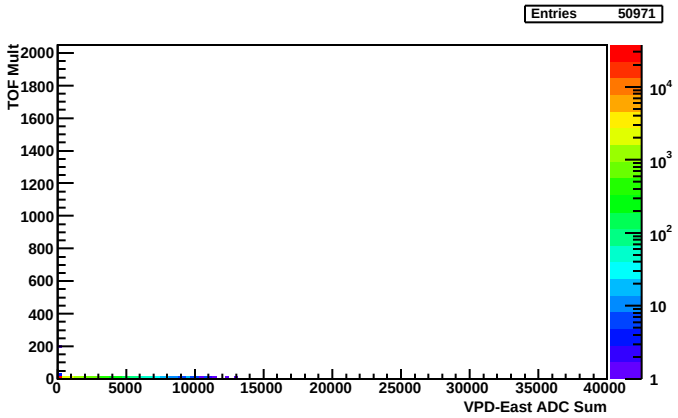

BBQ-VP004 (HI threshold)
Entries 815536
TAC
QT Input Channel

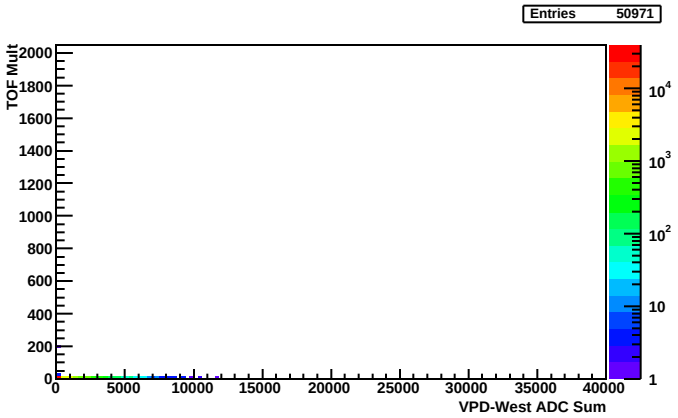

Entries 50971
TOF Mult
BBC-L-East ADC Sum

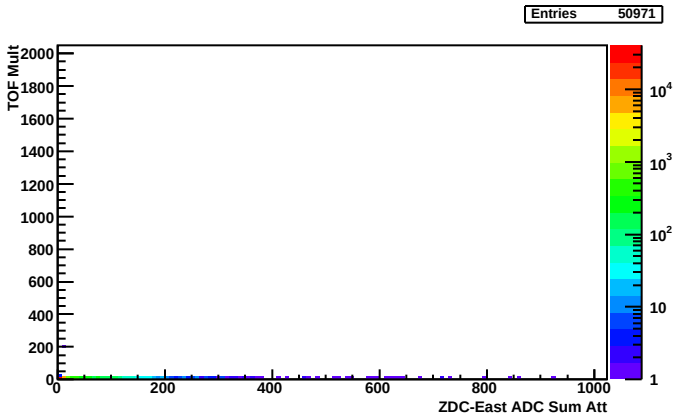

Entries 50971
TOF Mult
BBC-L-West ADC Sum

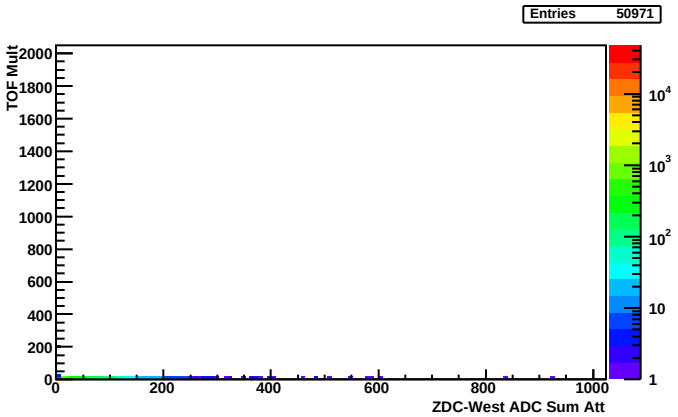

Entries 50971
TOF Mult
BBC-S-East ADC Sum

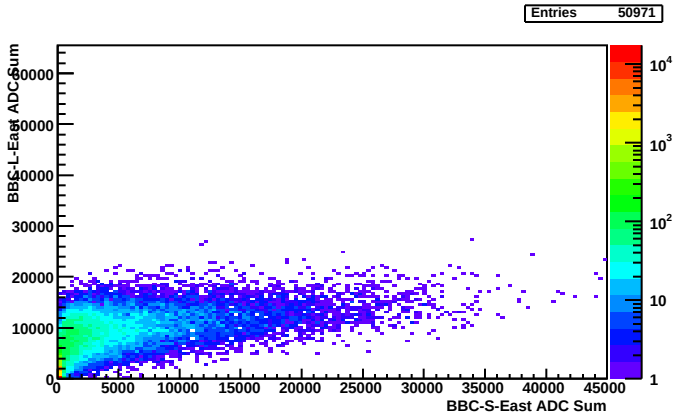

Entries 50971
TOF Mult
BBC-S-West ADC Sum

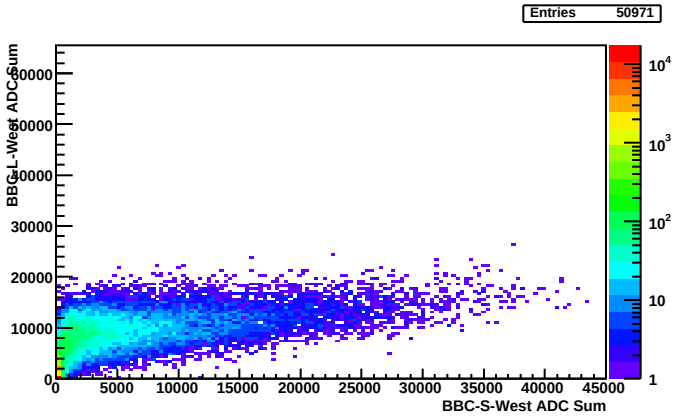

Entries 50971
TOF Mult
VPD-East ADC Sum

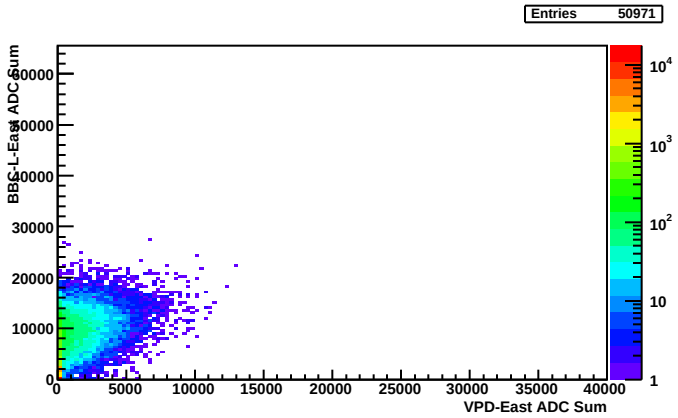

Entries 50971
TOF Mult
VPD-West ADC Sum

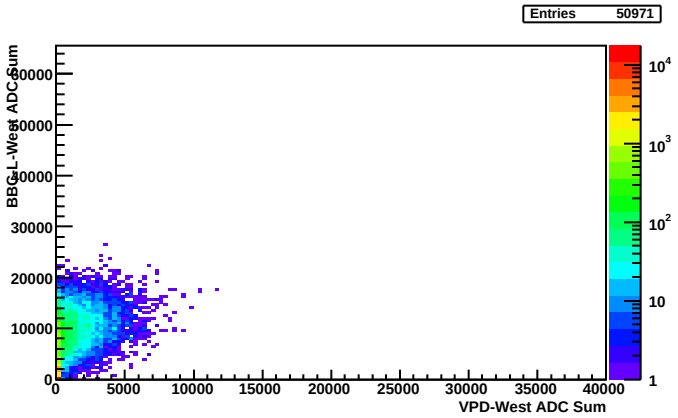

Entries 50971
TOF Mult
ZDC-East ADC Sum Att

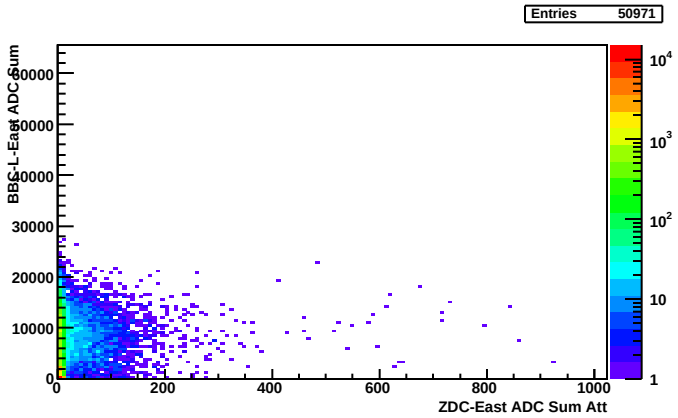

Entries 50971
TOF Mult
ZDC-West ADC Sum Att

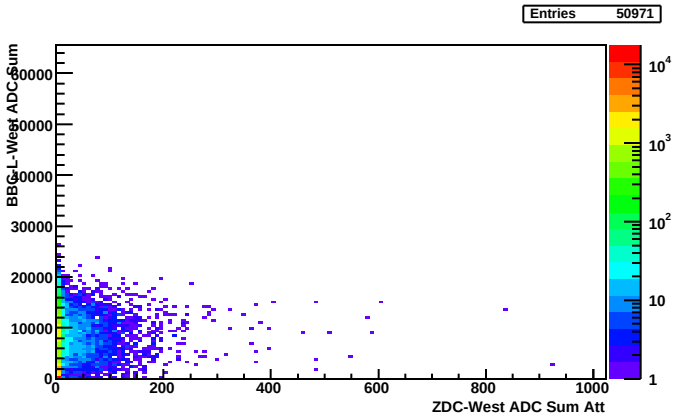

Entries 50971
BBC-L-East ADC Sum
BBC-S-East ADC Sum

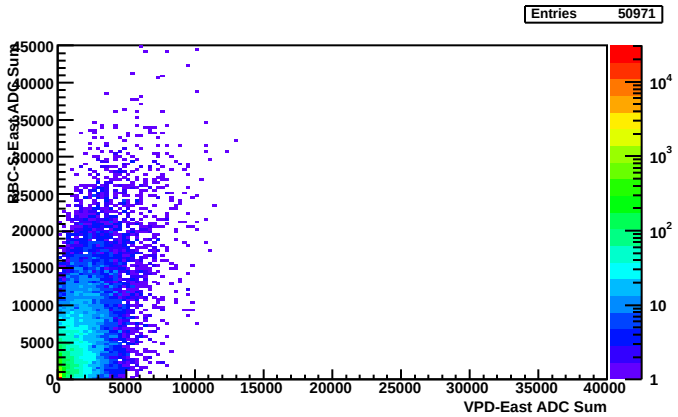

Entries 50971
BBC-L-West ADC Sum
BBC-S-West ADC Sum

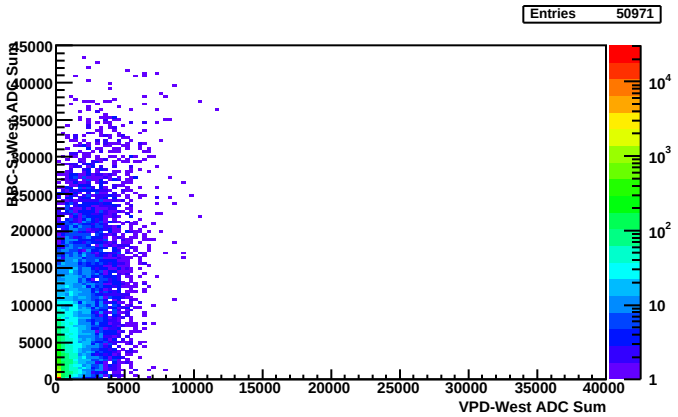

Entries 50971
BBC-L-East ADC Sum
VPD-East ADC Sum

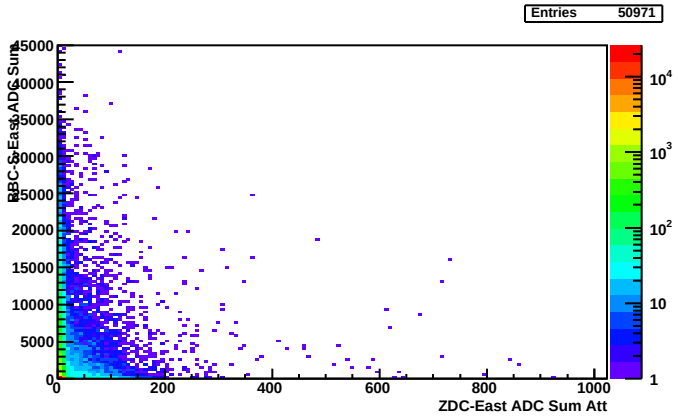

Entries 50971
BBC-L-West ADC Sum
VPD-West ADC Sum

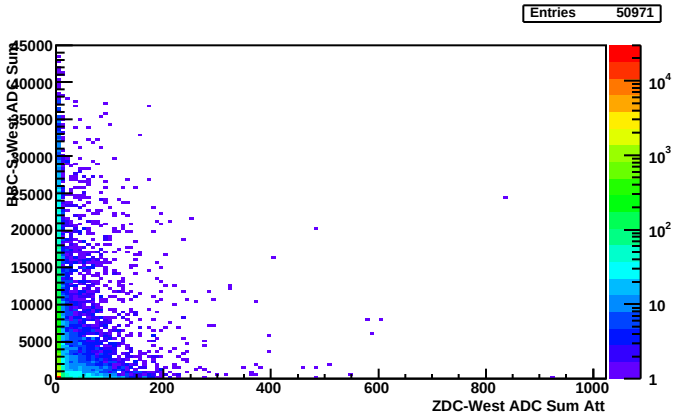

Entries 50971
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

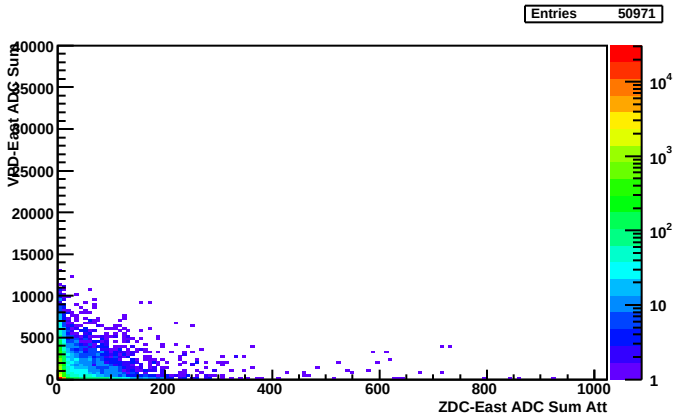

Entries 50971
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

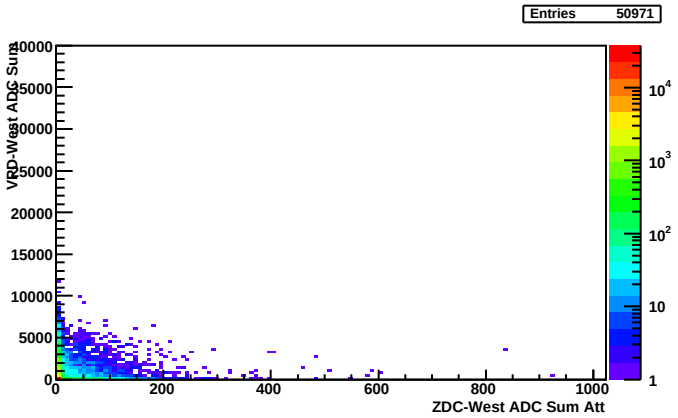

Entries 50971
BBC-S-East ADC Sum
VPD-East ADC Sum

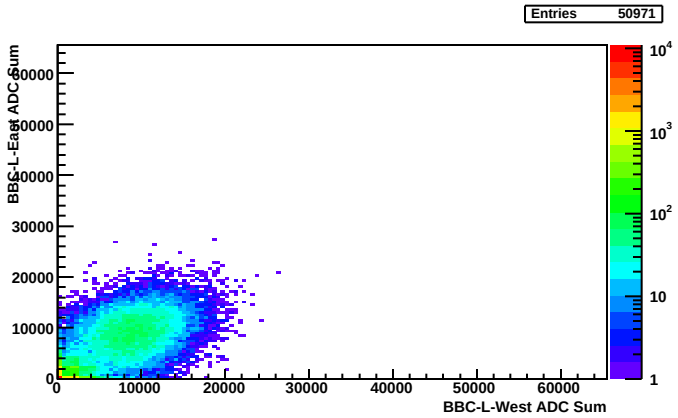

Entries 50971
BBC-S-West ADC Sum
VPD-West ADC Sum

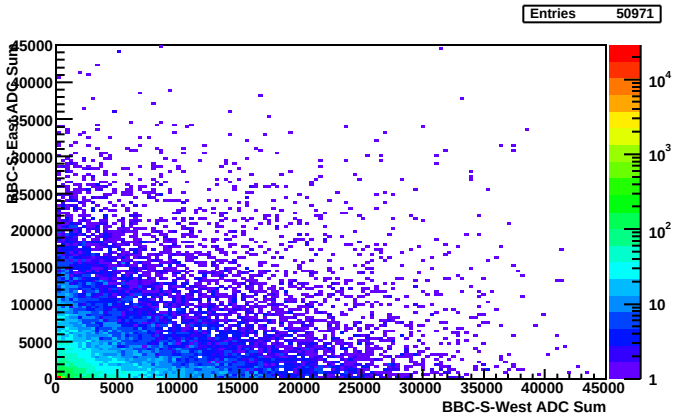

Entries 50971
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

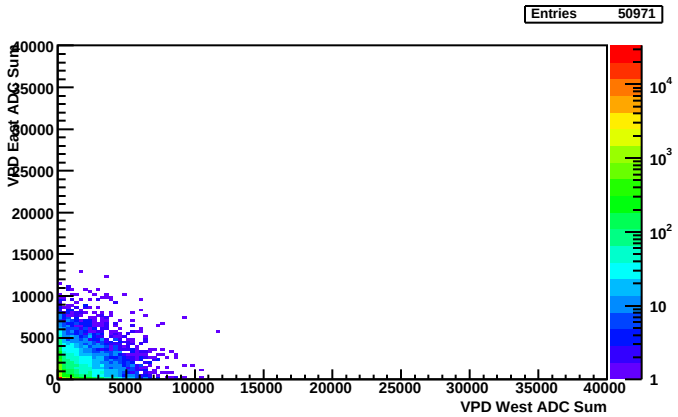

Entries 50971
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

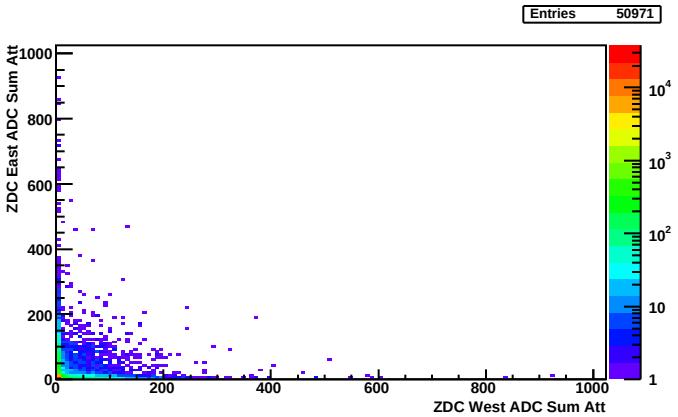

Entries 50971
VPD-East ADC Sum
ZDC-East ADC Sum Att

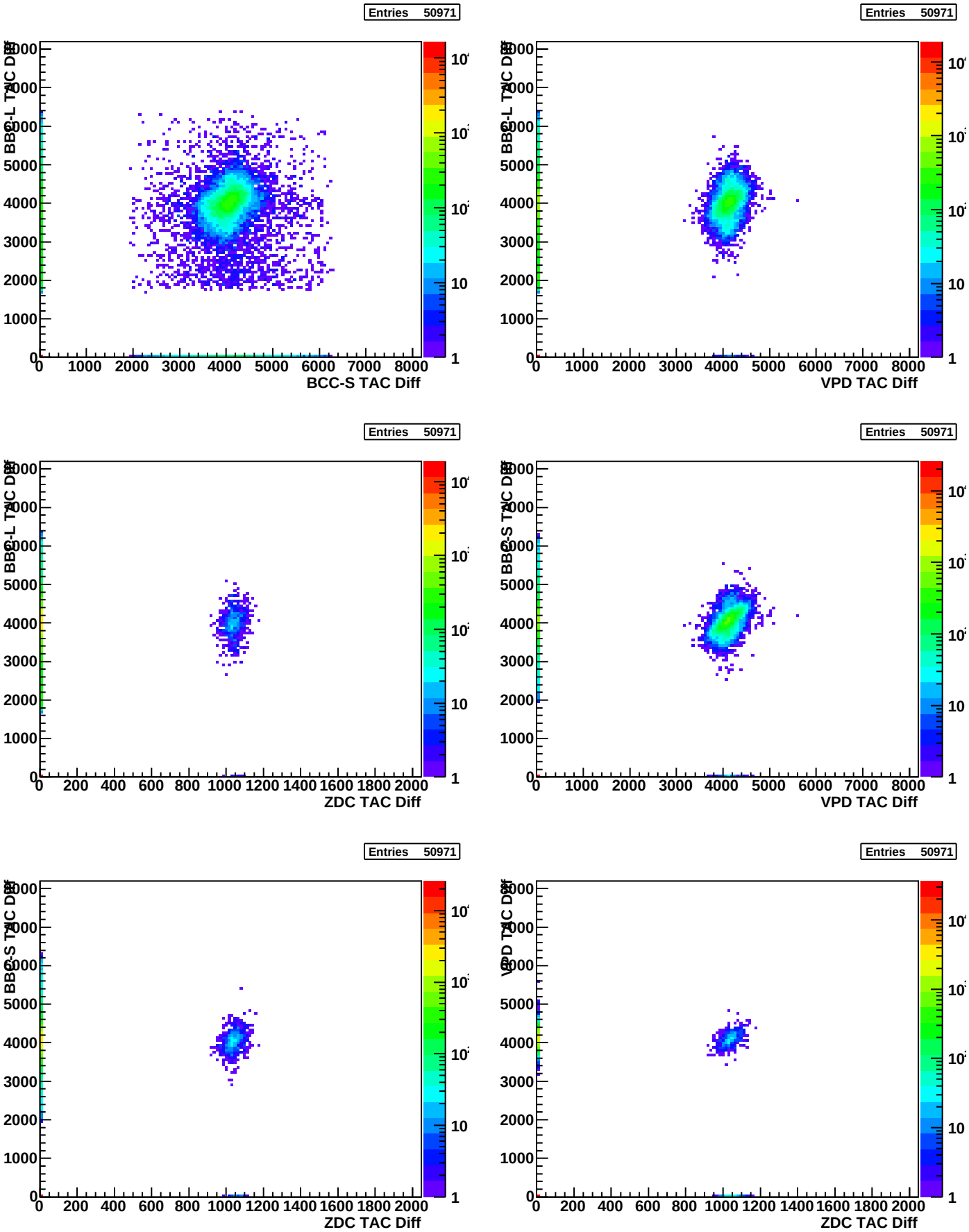

Entries 50971
VPD-West ADC Sum
ZDC-West ADC Sum Att

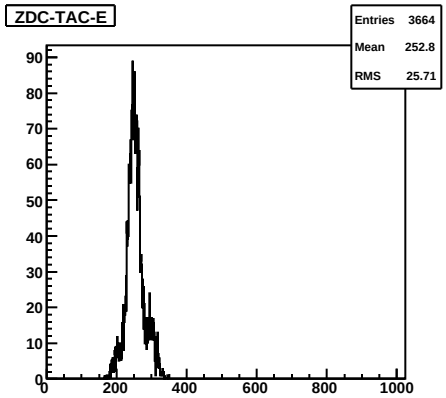

Entries 50971
BBC-L-East ADC Sum
BBC-L-West ADC Sum

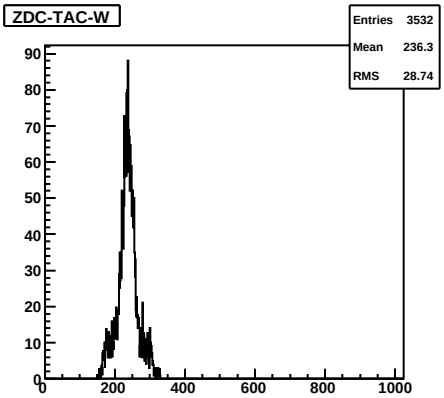

Entries 50971
BBC-S-East ADC Sum
BBC-S-West ADC Sum

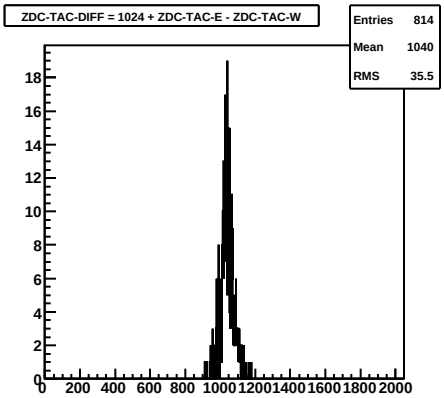

Entries 50971
VPD East ADC Sum
VPD West ADC Sum

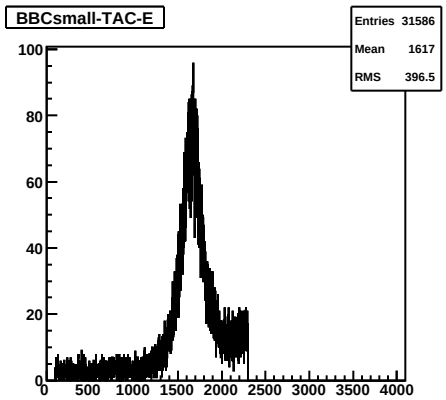

Entries 50971
ZDC East ADC Sum Att
ZDC West ADC Sum Att

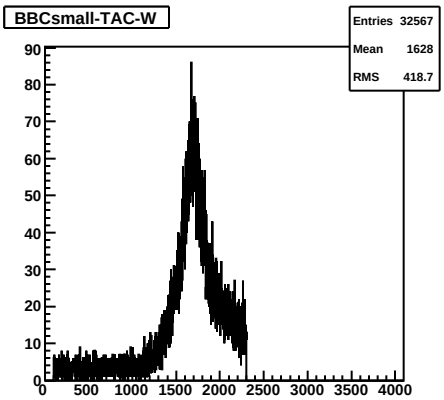

Entries 50971
BBC-L TAC Diff
BCC-S TAC Diff
Entries 50971
BBC-L TAC Diff
VPD TAC Diff
Entries 50971
BBC-L TAC Diff
ZDC TAC Diff
Entries 50971
BBC-S TAC Diff
VPD TAC Diff
Entries 50971
BBC-S TAC Diff
ZDC TAC Diff
Entries 50971
VPD TAC Diff
ZDC TAC Diff

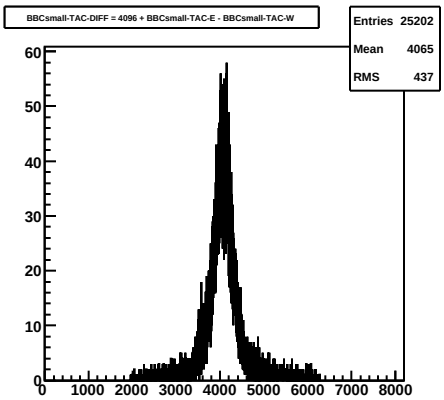

ZDC-TAC-E
Entries 3664
Mean 252.8
RMS 25.71

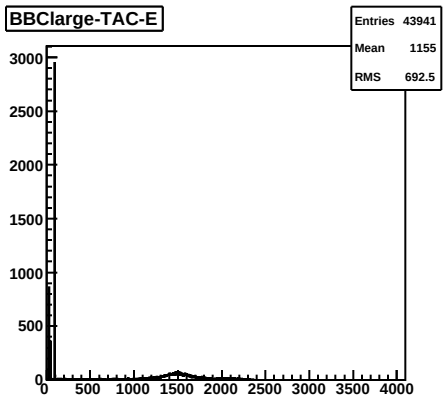

ZDC-TAC-W
Entries 3532
Mean 236.3
RMS 28.74

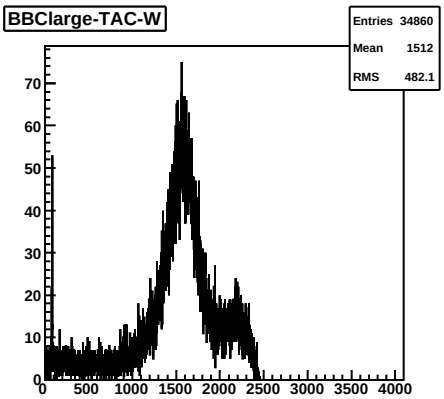

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 814
Mean 1040
RMS 35.5

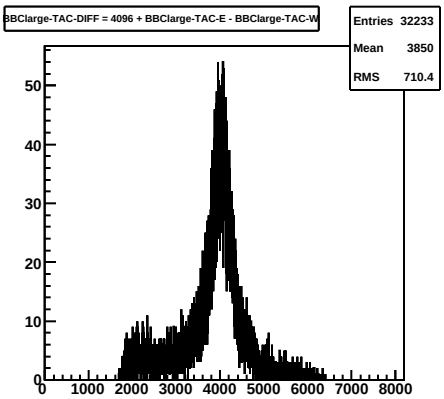

BBCsmall-TAC-E
Entries 31586
Mean 1617
RMS 396.5

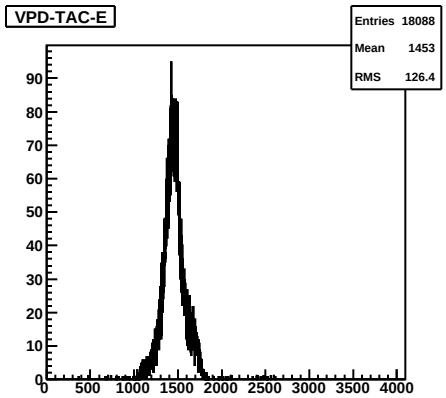

BBCsmall-TAC-W
Entries 32567
Mean 1628
RMS 418.7

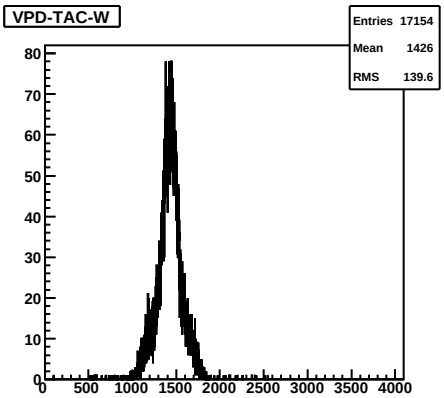

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 25202
Mean 4065
RMS 437

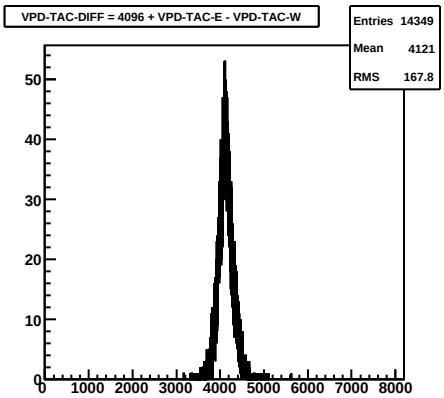

BBClarge-TAC-E
Entries 43941
Mean 1155
RMS 692.5

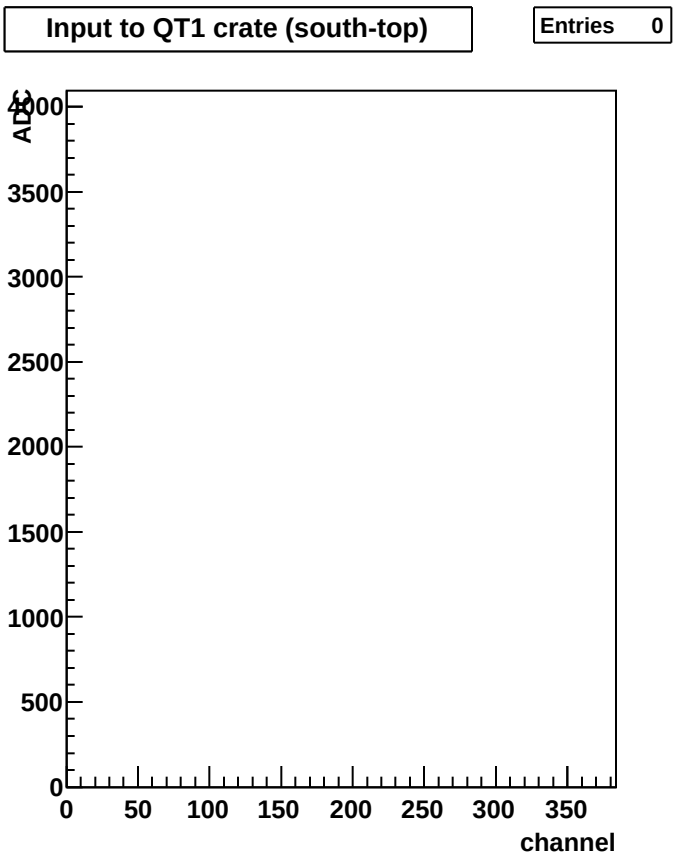

BBClarge-TAC-W
Entries 34860
Mean 1512
RMS 482.1

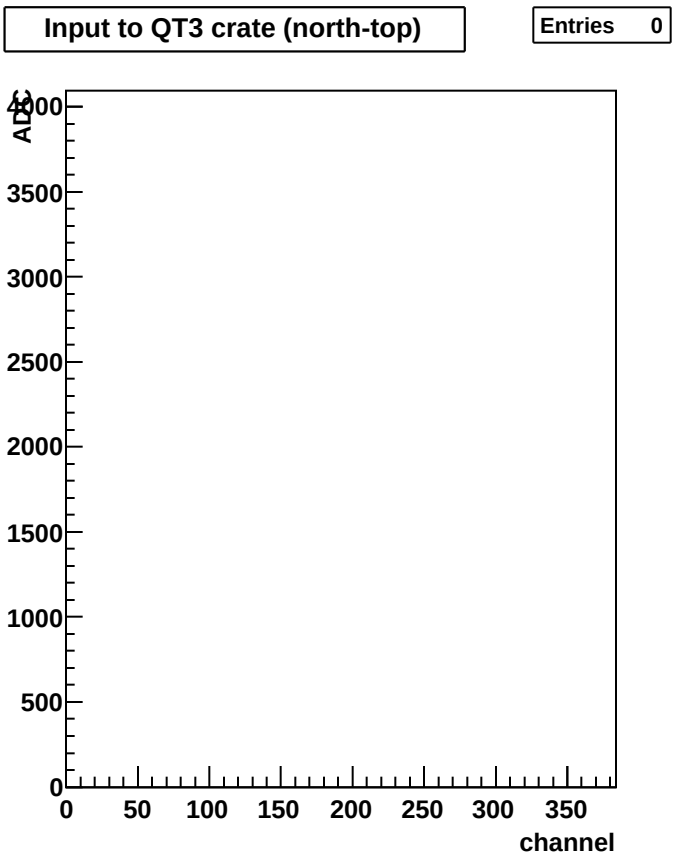

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 32233
Mean 3850
RMS 710.4

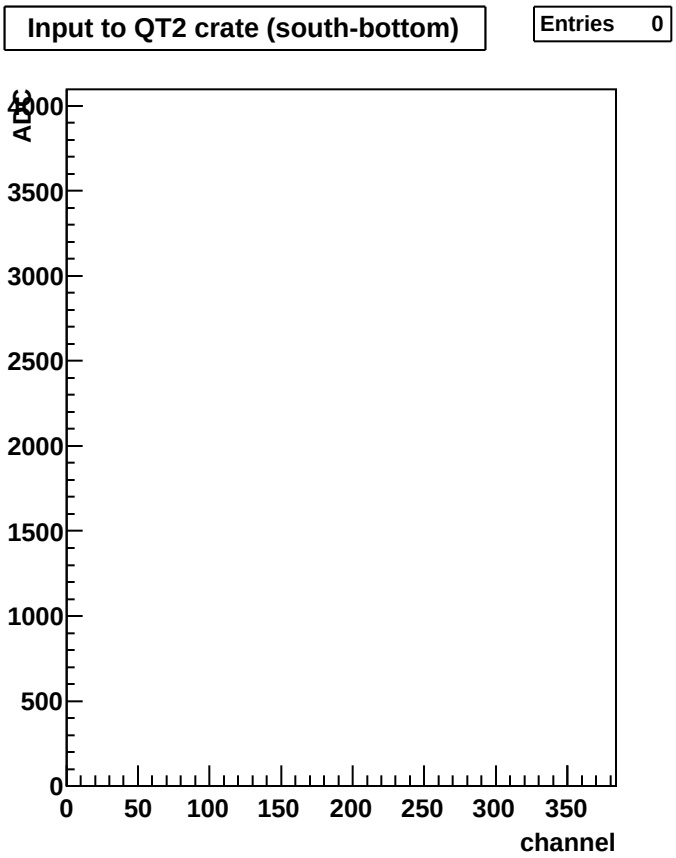

VPD-TAC-E
Entries 18088
Mean 1453
RMS 126.4

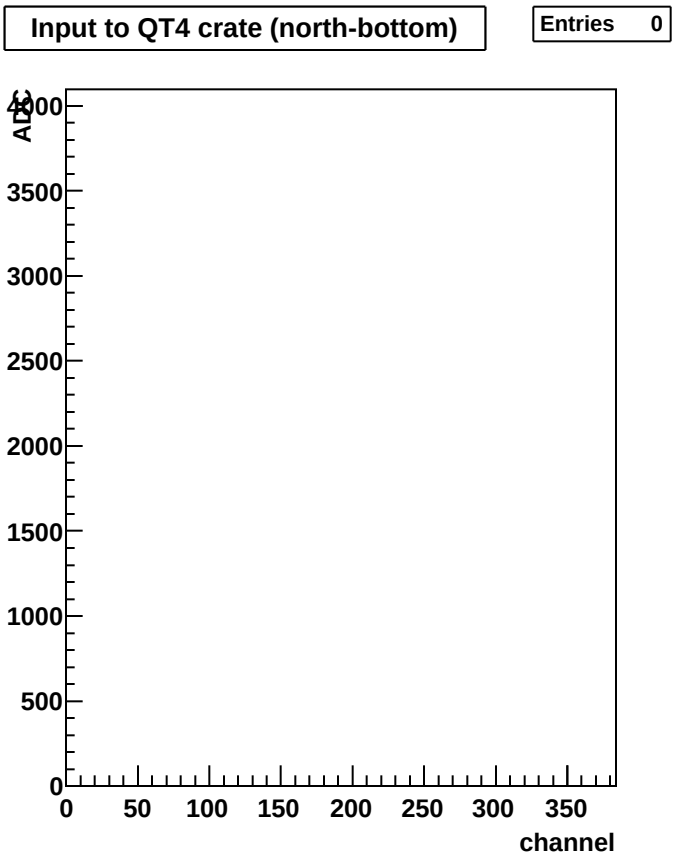

VPD-TAC-W
Entries 17154
Mean 1426
RMS 139.6

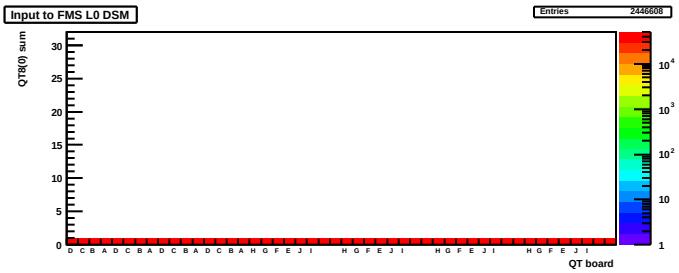

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 14349
Mean 4121
RMS 167.8

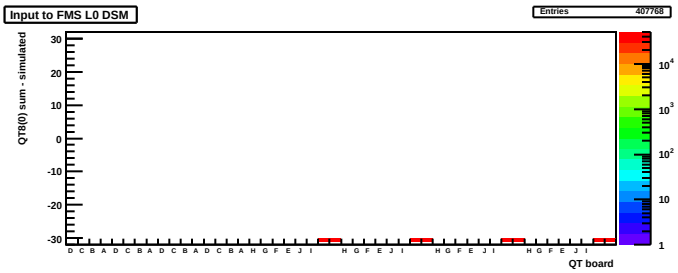

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

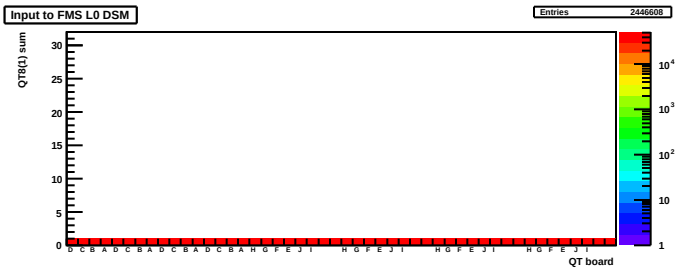

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

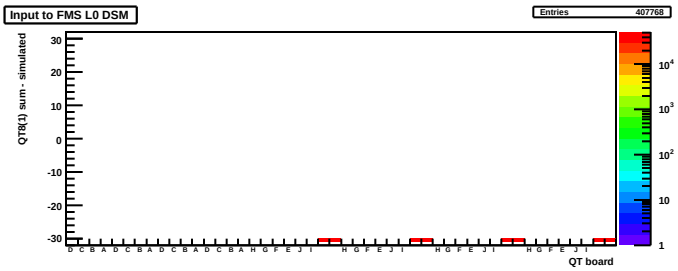

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

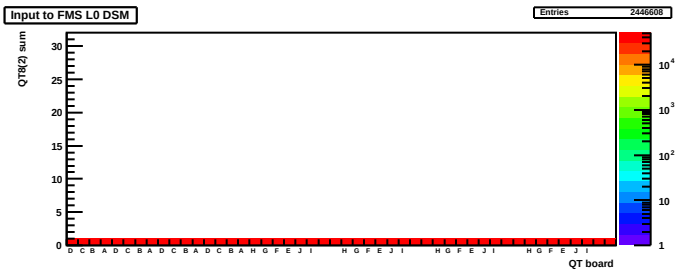

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

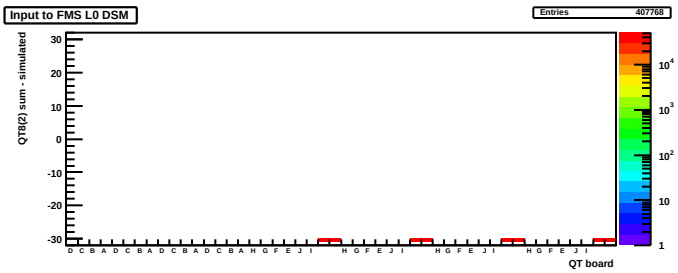

Input to FMS L0 DSM
Entries 2446608
QT8(0) sum
QT board

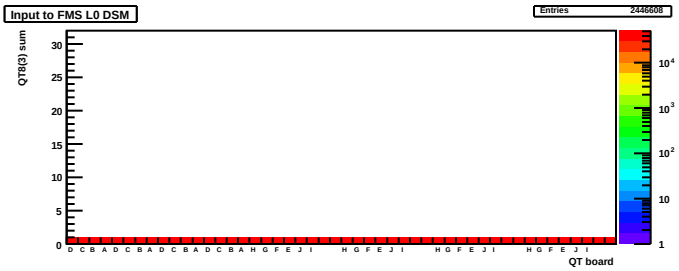

Input to FMS L0 DSM
Entries 407768
QT8(0) sum - simulated
QT board

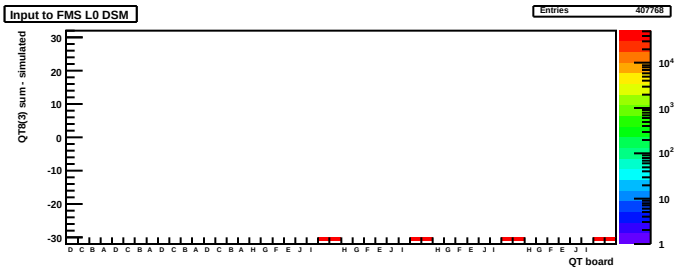

Input to FMS L0 DSM
Entries 2446608
QT8(1) sum
QT board

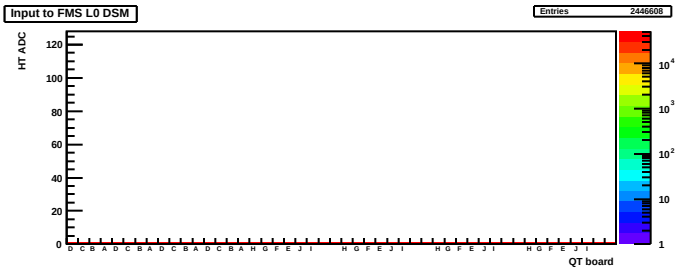

Input to FMS L0 DSM
Entries 407768
QT8(1) sum - simulated
QT board

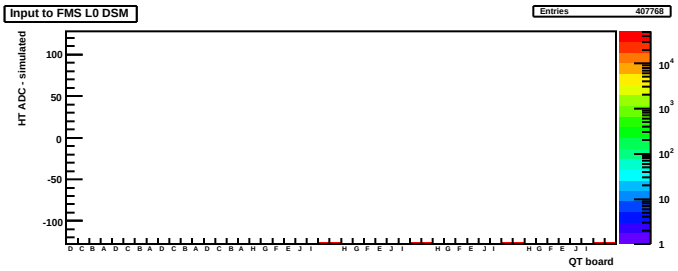

Input to FMS L0 DSM
Entries 2446608
QT8(2) sum
QT board

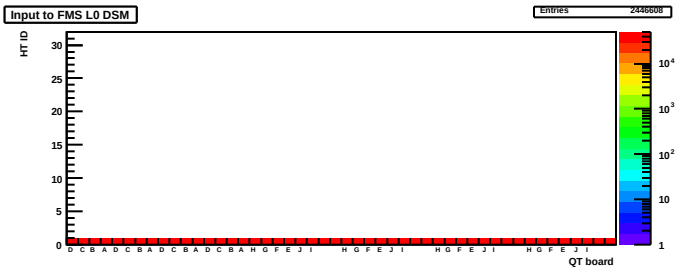

Input to FMS L0 DSM
Entries 407768
QT8(2) sum - simulated
QT board

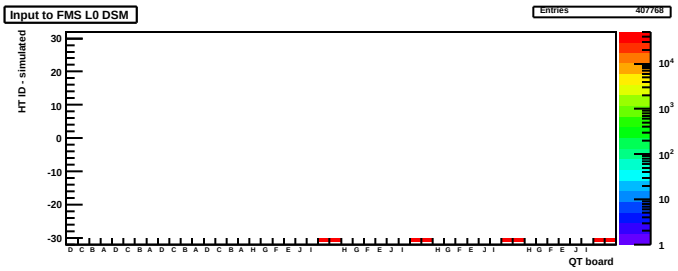

Input to FMS L0 DSM
Entries 2446608
QT8(3) sum
QT board

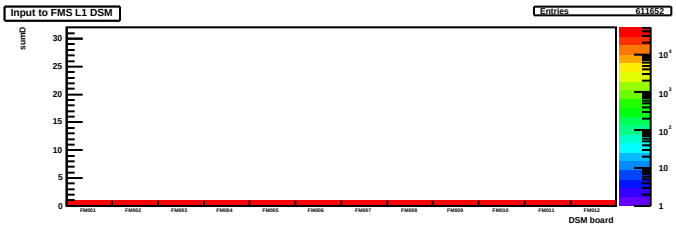

Input to FMS L0 DSM
Entries 407768
QT8(3) sum - simulated
QT board

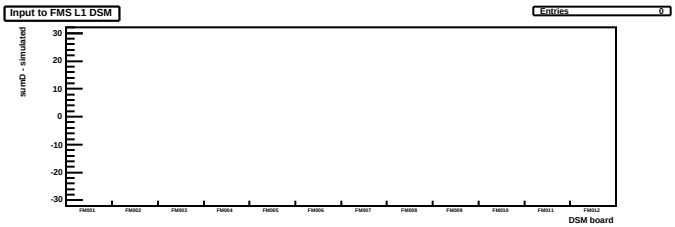

Input to FMS L0 DSM
Entries 2446608
HT ADC
QT board

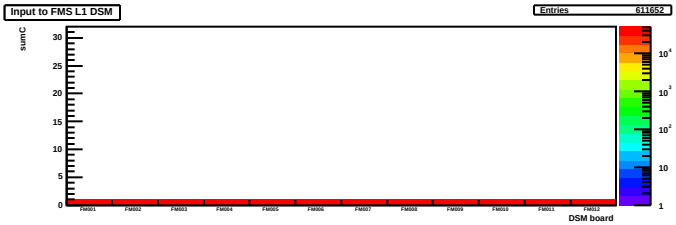

Input to FMS L0 DSM
Entries 407768
HT ADC - simulated
QT board

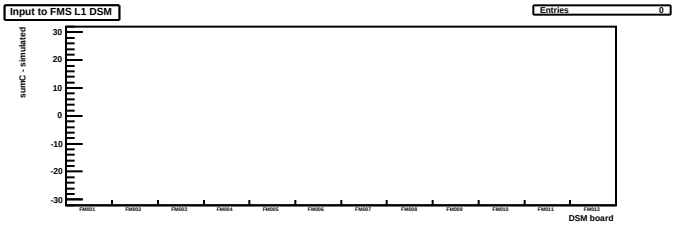

Input to FMS L0 DSM
Entries 2446608
HT ID
QT board

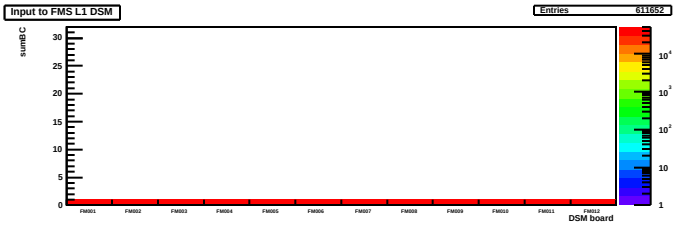

Input to FMS L0 DSM
Entries 407768
HT ID - simulated
QT board

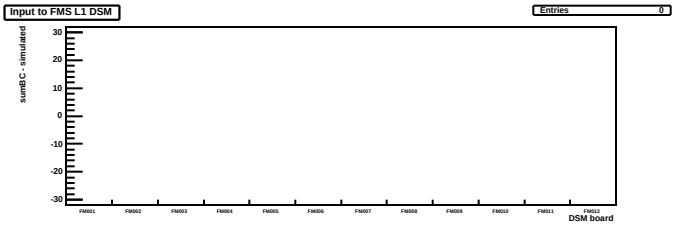

Input to FMS L1 DSM
Entries 611652
sumD
DSM board

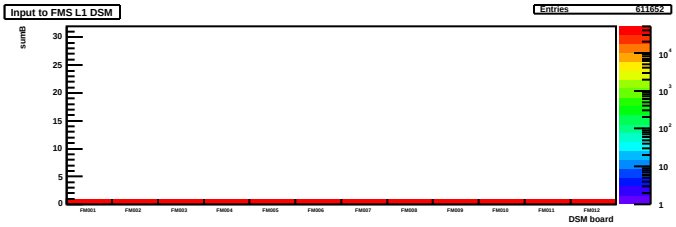

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

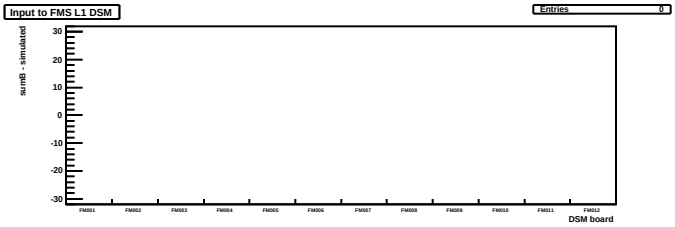

Input to FMS L1 DSM
Entries 611652
sumC
DSM board

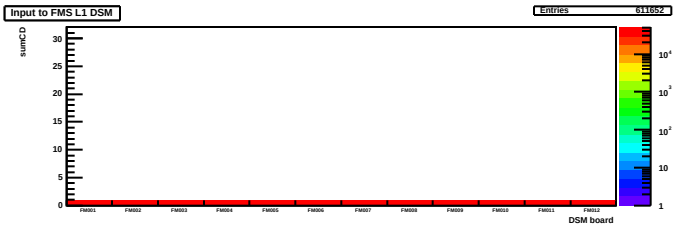

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

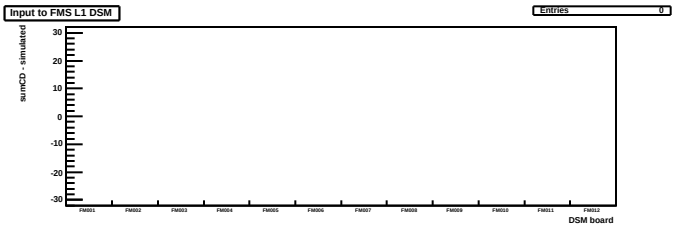

Input to FMS L1 DSM
Entries 611652
sumBC
DSM board

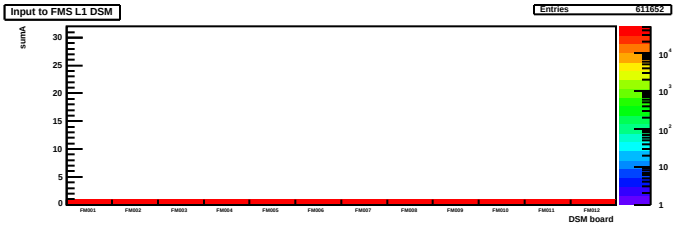

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

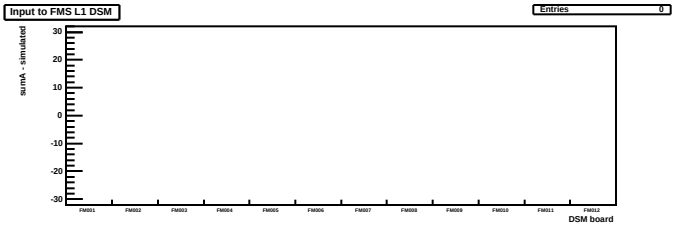

Input to FMS L1 DSM
Entries 611652
sumB
DSM board

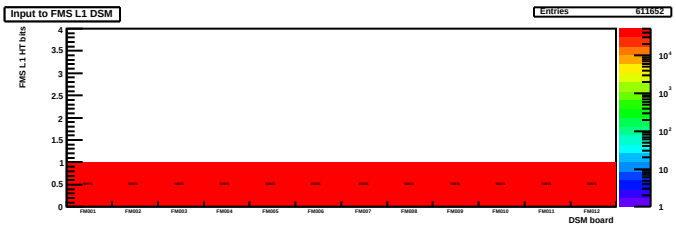

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

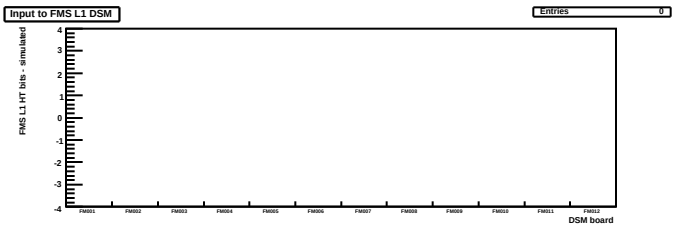

Input to FMS L1 DSM
Entries 611652
sumCD
DSM board

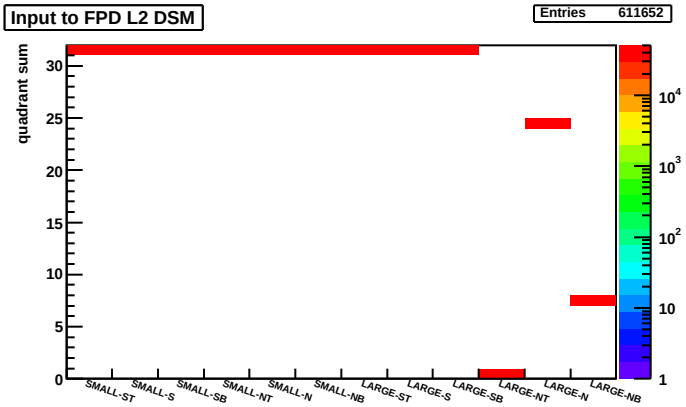

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

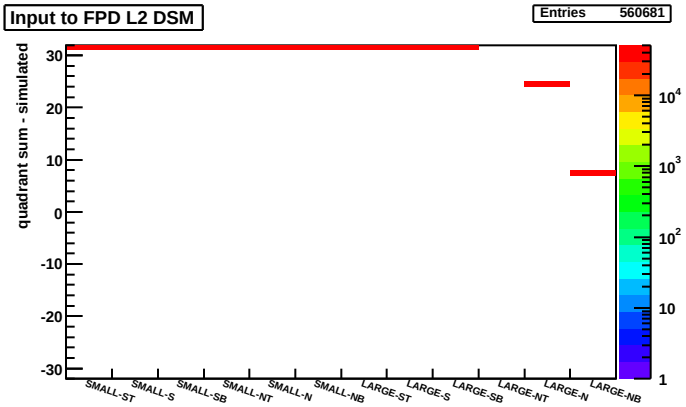

Input to FMS L1 DSM
Entries 611652
sumA
DSM board

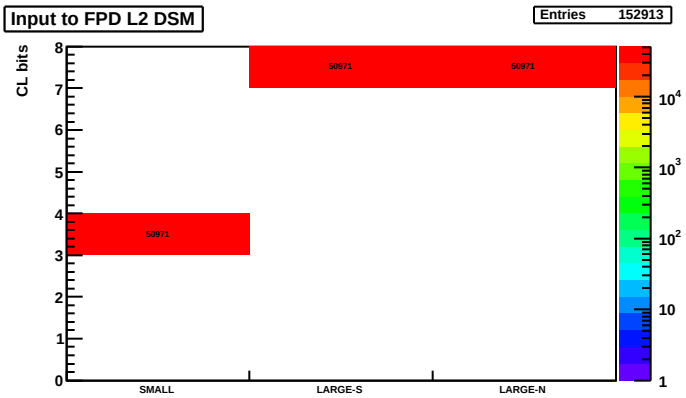

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

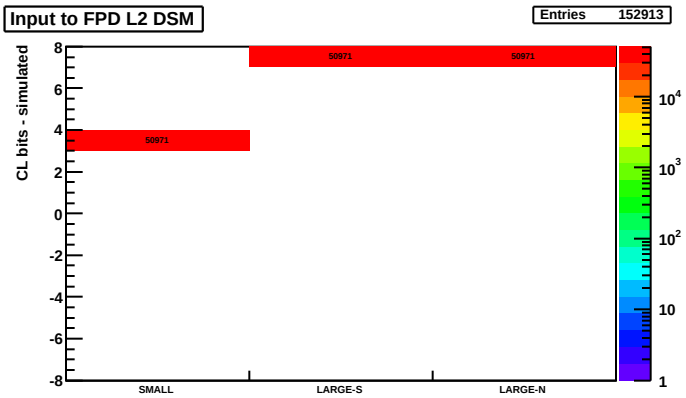

Input to FMS L1 DSM
Entries 611652
FMS L1 HT bits
DSM board

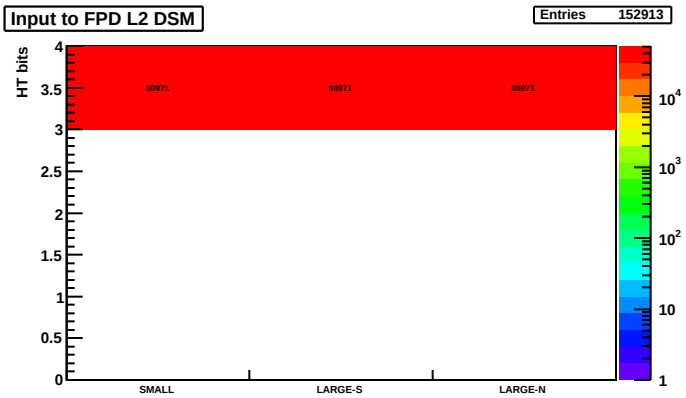

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

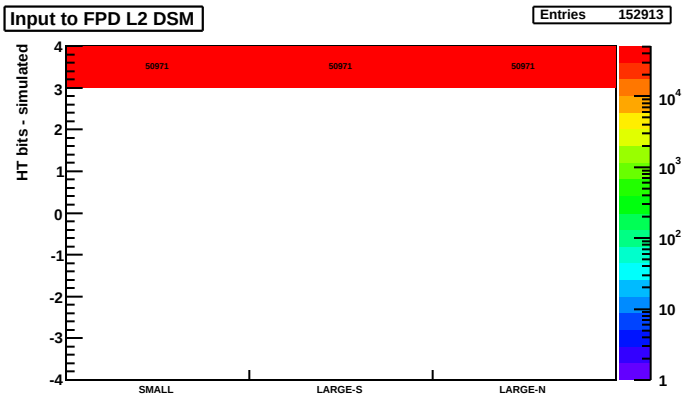

Input to FPD L2 DSM
Entries 611652
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

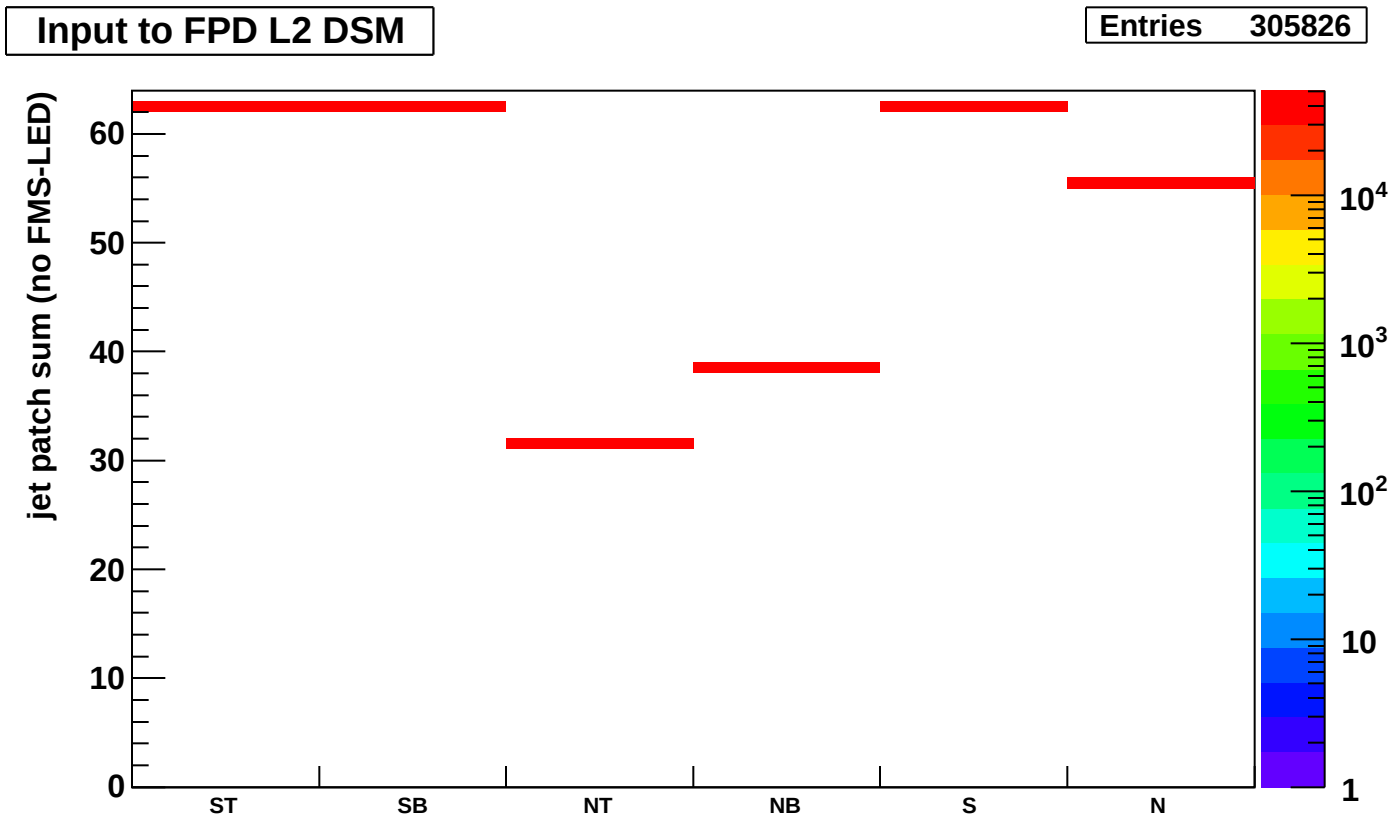

Input to FPD L2 DSM
Entries 560681
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

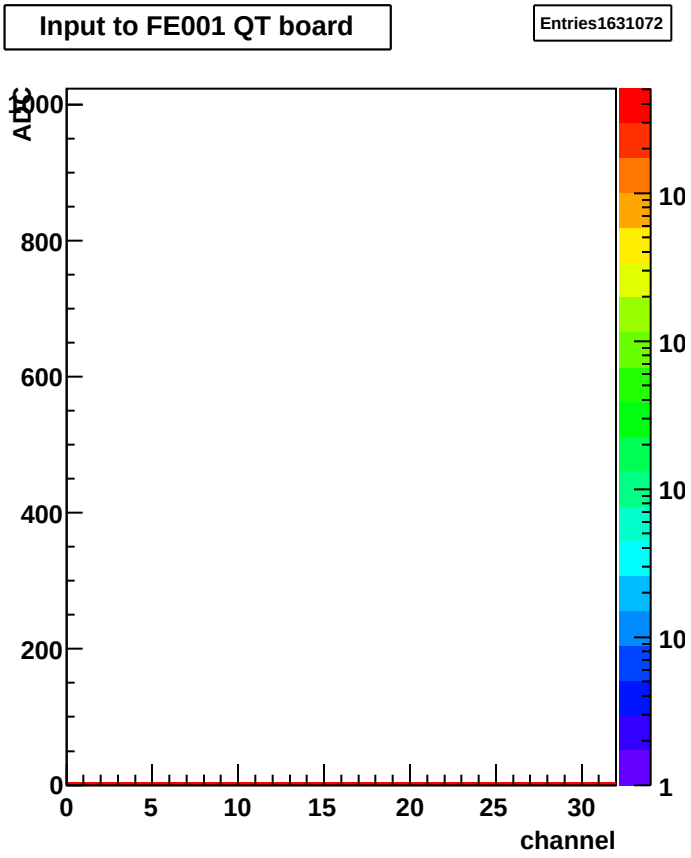

Input to FPD L2 DSM
Entries 152913
CL bits
50971
50971
50971
SMALL
LARGE-S
LARGE-N

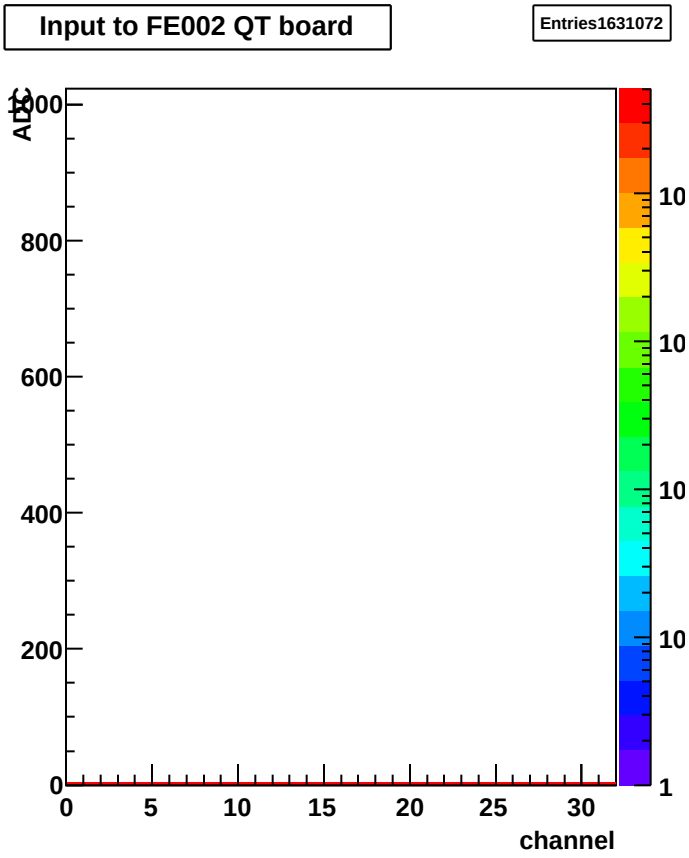

Input to FPD L2 DSM
Entries 152913
CL bits - simulated
50971
50971
50971
SMALL
LARGE-S
LARGE-N

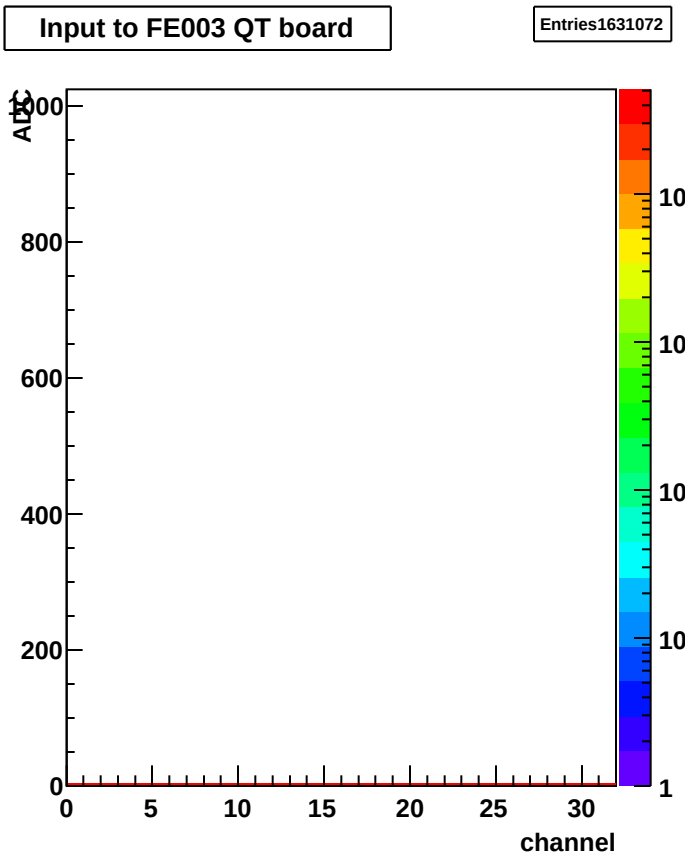

Input to FPD L2 DSM
Entries 152913
HT bits
50971
50971
50971
SMALL
LARGE-S
LARGE-N

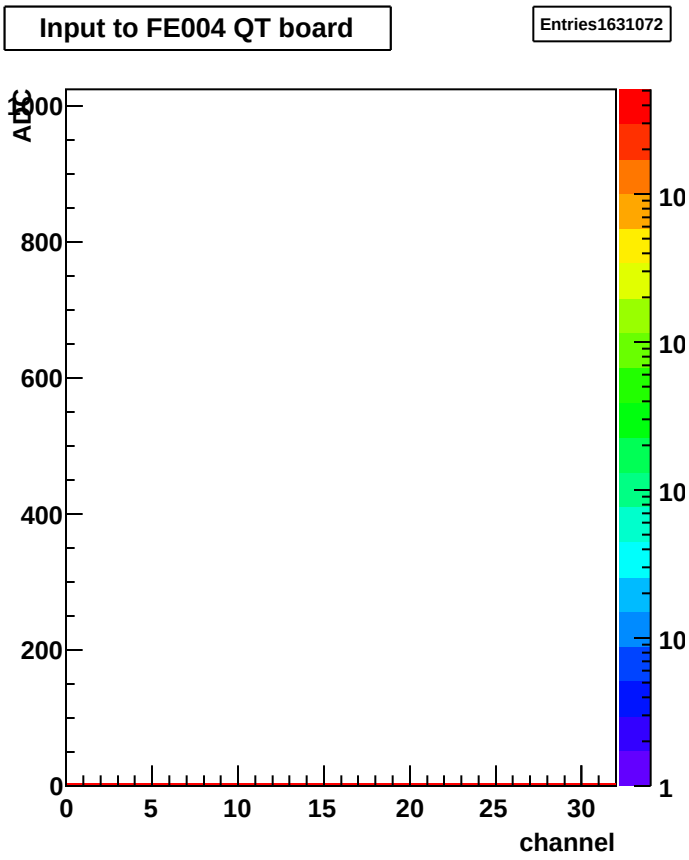

Input to FPD L2 DSM
Entries 152913
HT bits - simulated
50971
50971
50971
SMALL
LARGE-S
LARGE-N

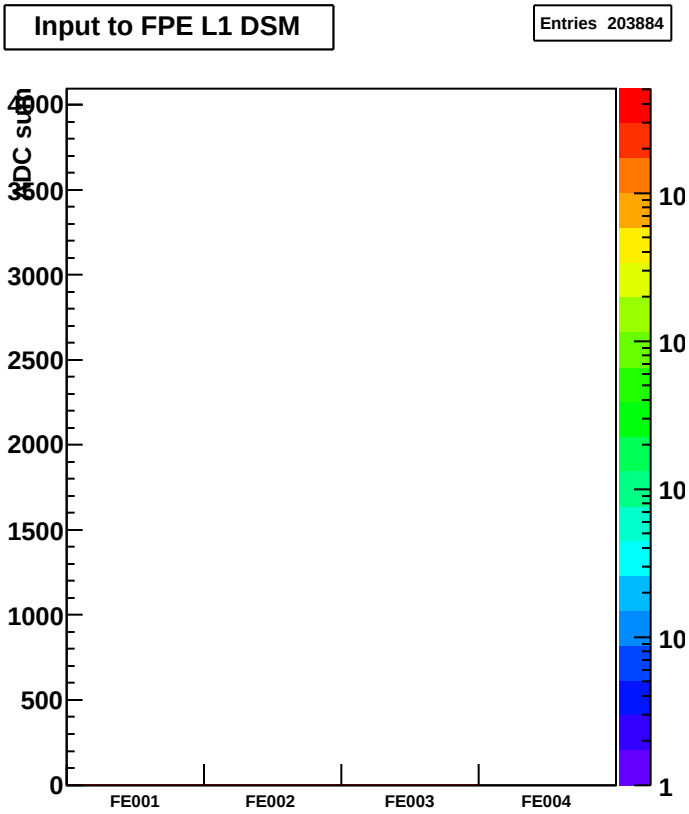

Input to FPD L2 DSM
Entries 305826
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

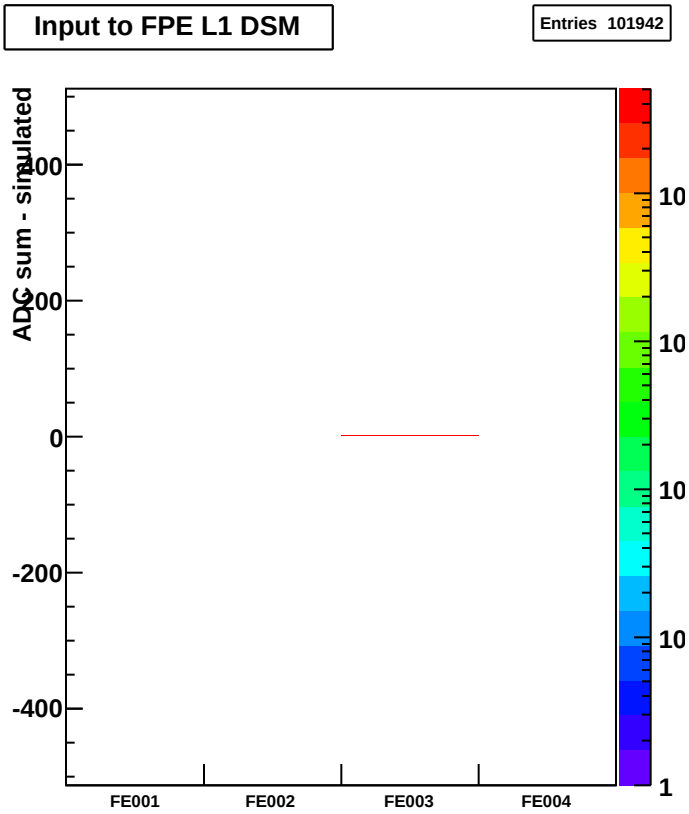

Input to FE001 QT board
Entries1631072
ADC
channel

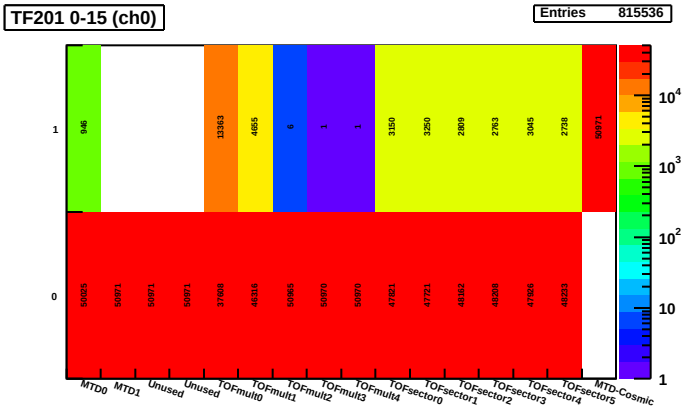

Input to FE002 QT board
Entries1631072
ADC
channel

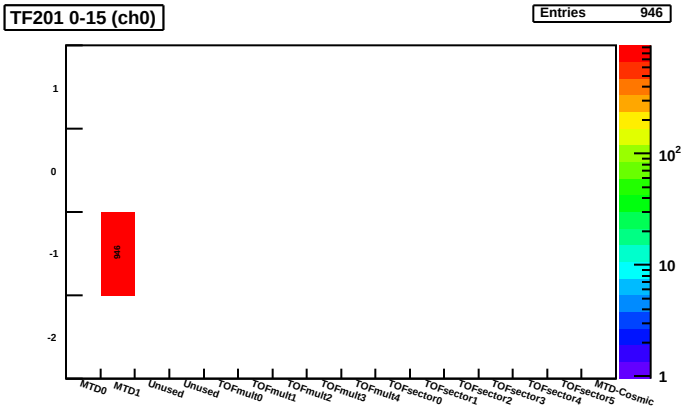

Input to FE003 QT board
Entries1631072
ADC
channel

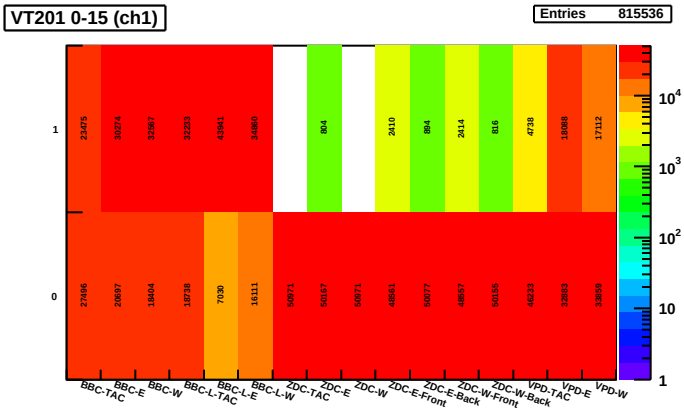

Input to FE004 QT board
Entries1631072
ADC
channel

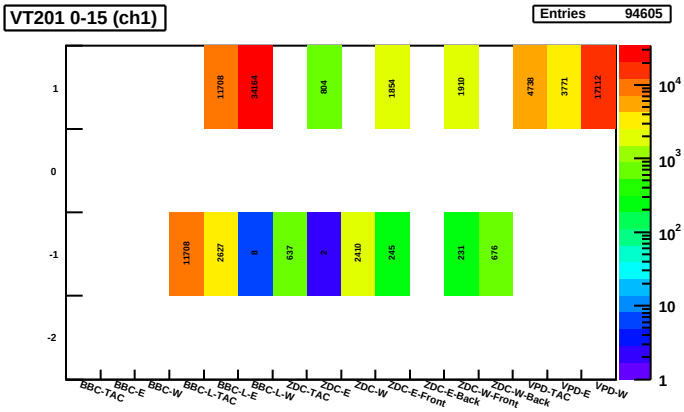

Input to FPE L1 DSM
Entries 203884
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 101942
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 815536
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 946
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 815536
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
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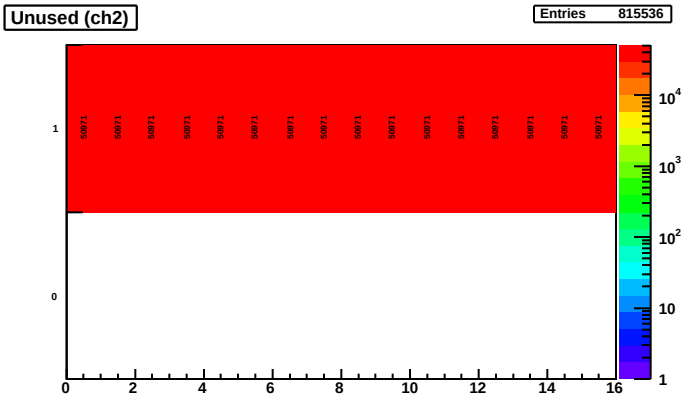
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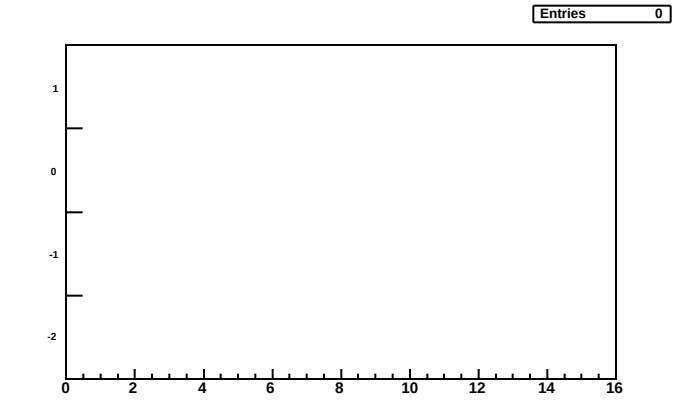
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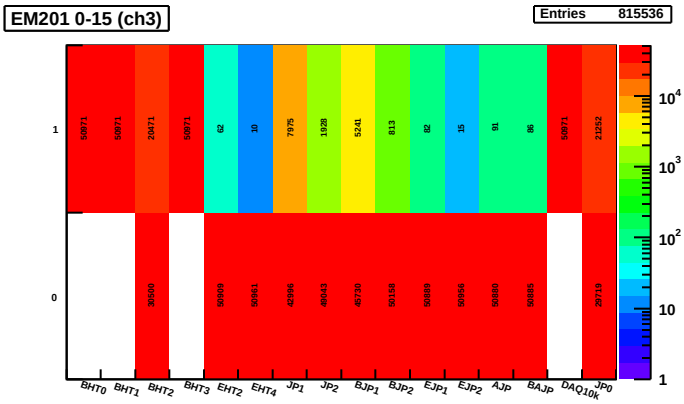
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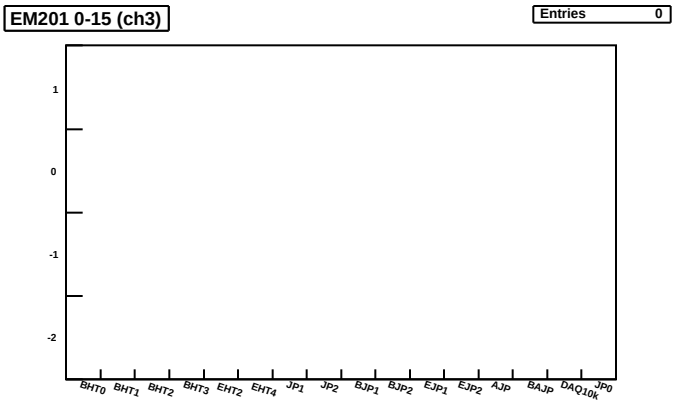
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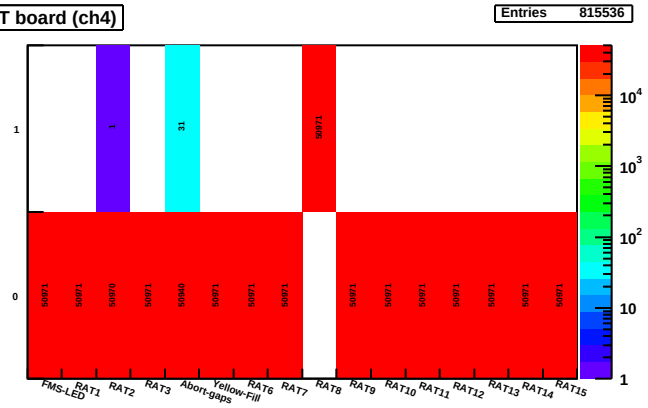
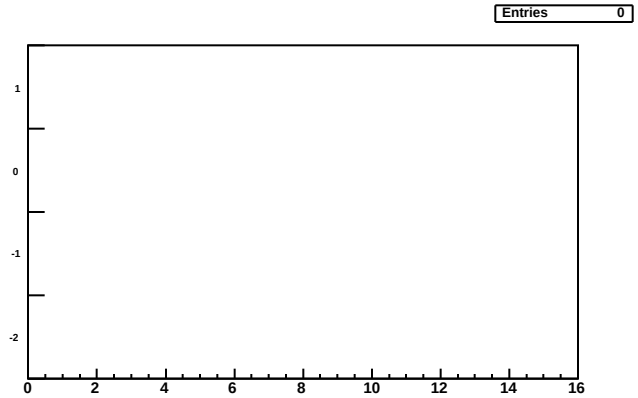
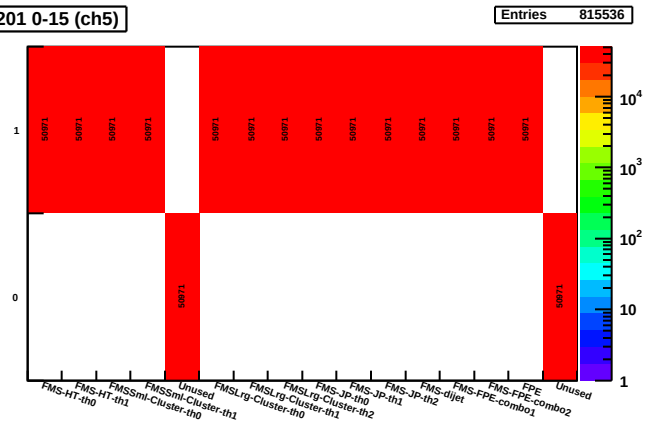
RAT board (ch4)

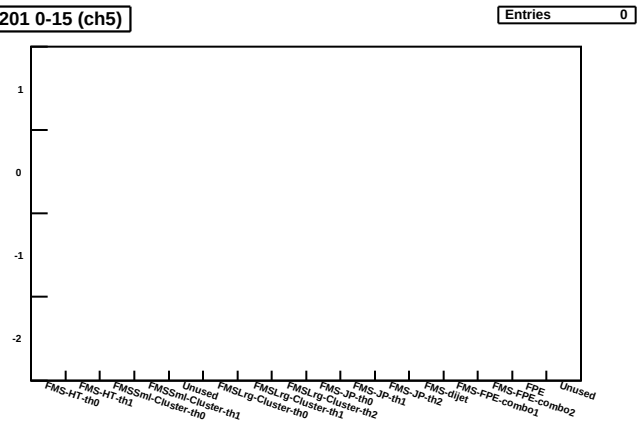




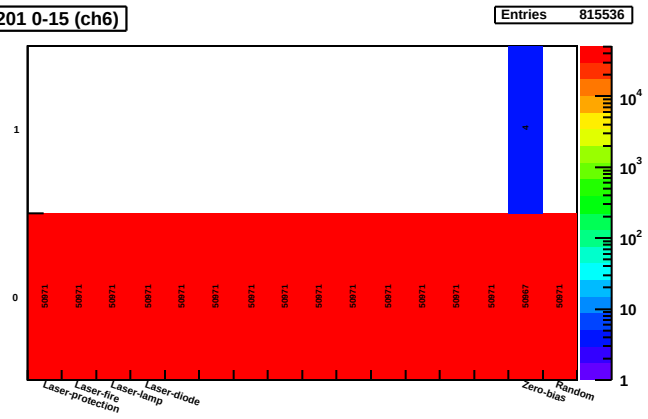
FP201 0-15 (ch5)

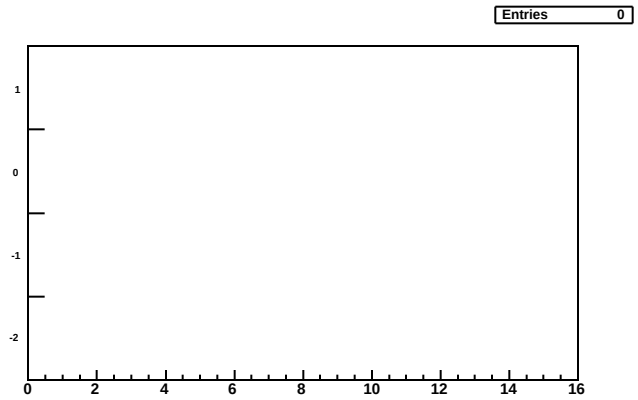
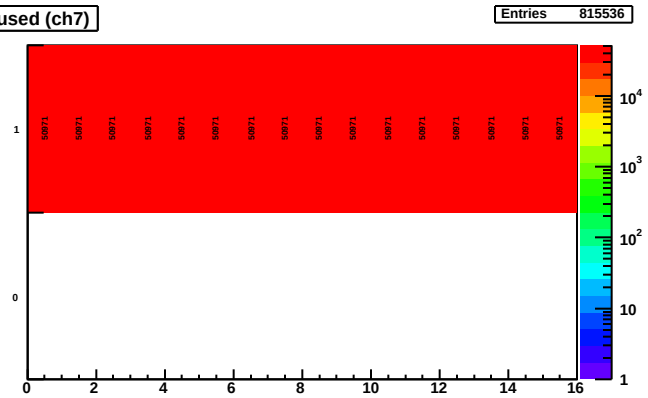
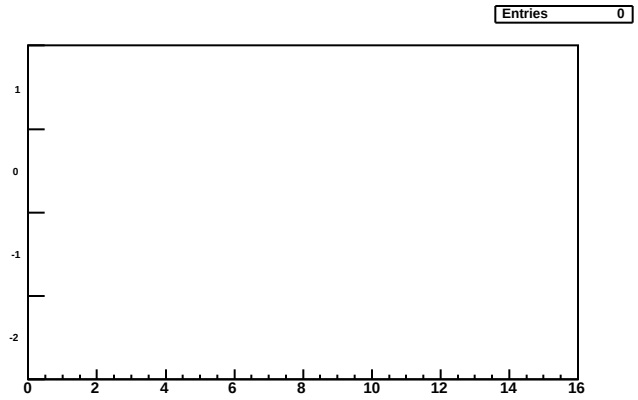


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)